

Green

Thumb

Denver Botanic Gardens

January 1987

Number 87-1



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Chatfield Welcomes the New Year with Some Major Changes

Christmas came early to the 350-acre Chatfield Arboretum. This fall, thanks to a unique partnership between the Colorado State Highway Department, the U.S. Army Corps of Engineers and Denver Botanic Gardens, the Arboretum will be enhanced with an 18½-acre wetlands. Bulrushes, cattails and marshland sedges, which will attract additional bird life and aquatic mammals, will sprout along the south edge of lower Deer Creek. All of these wetland plant materials have been removed from Massey Draw, which is being altered

by the current phase of C-470 construction, between South Wadsworth Boulevard and Ken Caryl Road. The wetlands area at the Arboretum has been attractively re-landscaped to include small ponds with a connecting riparian trail system.

As heavy duty construction equipment roared throughout the Arboretum grounds in late August, the excavated fill material was moved across Deer Creek to create an amphitheater and parking lot for future summer concerts. The seeding

was completed just as the first snows fell this October, to ensure the germination of the grasses that will deter erosion in the saucer-shaped amphitheater.

All of the parties involved in this innovative agreement have benefited from the C-470 wetlands project. The Colorado Department of Highways was required to comply with the Federal Clean Water Act of 1977 to re-create the Massey Draw wetlands. The U.S. Army Corps of Engineers was able to issue the vital 404 permit, by allowing the wetland plant species to be re-located and Denver Botanic Gardens moved one step closer to opening the Arboretum to the public.

New Year's resolutions abound within the minds of the members of the Chatfield Arboretum Committee and its various subcommittees and plans for future projects are being carefully considered.

Until it is opened to the general public, tours of organized groups and garden clubs may be arranged by contacting the Education department at DBG, 575-3751, extension 20.

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Wetlands development at Chatfield Arboretum



Mark Your Calendars

The Annual Membership meeting will be held in John C. Mitchell II Hall on Wednesday, February 11, 1987. Look for details in the February *Green Thumb News*.

Escape from
January's cold
in the
Conservatory.



Community Phase of Endowment Campaign Underway

Lawrence A. Long, Life Board Member and General Chairman of the Endowment Campaign, has formed an outstanding leadership team to raise \$2 million to meet the \$1 million Boettcher Foundation Challenge Grant.

Serving on the Campaign Steering Committee are Mr. J. F. Baxter, Mr. Edward P. Connors, Mr. Donald K. Dodge, Mrs. John F. Falkenberg, Mr. Newell M. Grant, Mr. Richard A. Kirk, Mr. John C. Mitchell II, Mrs. Thomas Taplin and Mr. Robert Watson. Chairing the committees of the campaign are Mr. Edward P. Connors, Leadership Gifts; Mr. Robert Watson, Advance Gifts; Mr. Peter H. Blair, Major Gifts; and Mrs. John F. Falkenberg, Family Gifts.

Over one-fourth of our goal has been raised by the Leadership Gifts Committee. Members of the other committees will be going out into the community.

The importance of this Endowment Campaign to Denver Botanic Gardens cannot be minimized. With the continued erosion of City funding, increasing our endowment base will generate improved annual revenues for the long-term stabilization of the Gardens' fiscal position. Income from endowment, which at the end of the campaign should total \$4.7 million, will significantly strengthen the Gardens' fiscal stability.

Pledges to the Gardens' endowment fund will represent a true investment in the high quality of life we presently enjoy in this community. Payments can be tailored to any donor's individual convenience, as long as it is paid in full by December 31, 1989, a condition of the Boettcher Foundation Challenge Grant.

Tropical Rainforests: Strategies for Wise Management

The University of Colorado will host a conference on tropical rainforests February 5-8, 1987. This three-day conference will bring together the world's leading experts to discuss ways to manage this dwindling and irreplaceable resource.

Keynote speakers will be David Brower of Earth Island Institute and Catherine Caufield, author of *In the Rainforest*. Anne Ehrlich, from the Center for Conservation Biology, will join speakers from the Environmental Defense Fund, New York Botanical Gardens and many other national and international agencies dedicated to rainforest management.

For registration and additional information contact the CU Environmental Center, UMC 331, Campus Box 207, University of Colorado, Boulder, CO, 80309, or call (303) 492-8308. Individuals can attend single days for \$15 or all three days for \$30.

Tributes

In memory of Harold Berryman
Sarah B. Avery

In memory of Mrs. Sydney Brock
Ms. Dora S. Neidecker

In memory of Anita L. Carey
Mr. & Mrs. John F. Anderson
Mr. & Mrs. Samuel S. Sherman, Jr.
Ted & Mary Washburne

In memory of Gwendolyn Johnson
Eleanor I. Johnson

Mr. & Mrs. Ralph Rauscher
In memory of Grace Wierman
Mr. & Mrs. James Otis Walker
Ms. Janet Wierman

1987 Garden and Home Show

Members take note! Your current membership card will admit you, at no cost, to the first evening of the 28th Annual Garden and Home Show on February 6 from 6 to 10 p.m. This year's theme is "Pacific Trade Winds."

The Gardens is participating by providing many tropical and semitropical plants for the feature garden that surrounds a pool and an Oriental patio. The horticultural industry will provide display gardens and informative exhibits. Energy-efficient design ideas featured by public service and gas companies will offer ways to insulate and use your garage as a work or exercise area.

New methods always prevail at this show and attending is a wonderful way to gain an early glimpse into spring and assist the Gardens. DBG benefits from this popular spring event through grants for projects from previous show profits. Non-member general admission is \$4.50 for adults, \$2 for senior citizens and children of ages 6 to 12, while children under 6 can enter at no charge. Opening-night hours are 6 to 10 p.m., Sunday hours are noon to 6 p.m. and Monday through Saturday the doors will be open from noon to 10 p.m. The show ends on February 15.

Take advantage of this year's special agreement and enjoy "Pacific Trade Winds," in Currihan Hall at 14th and Champa Street. Hint: The first Friday is usually the quietest and the show is at its freshest.

Green Thumb News

Number 87-1 January 1987

Published monthly by the Denver Botanic Gardens Education department, 909 York Street, Denver, Colorado 80206, and edited by Patricia A. Pachuta and Carolyn Knepp. Subscription to this newsletter is a benefit of membership in the Botanic Gardens. For membership information, please write the Membership department at the above address or call 575-3751.

Deadlines for this newsletter are: Major news stories, feature material (including photographs or artwork), and short notes are all due not later than December 19 for February, January 19 for March and February 20 for April.

Please plan in advance and meet deadlines. Late material cannot be used. Stories must be typed, double-spaced, preferably on copy paper provided by the editor. Please call the Education department at 575-3751 for details.



Accredited by the
American Association
of Museums

From Your 1987 Plant and Used Book Sale Chairman—Happy New Year!

It's hard to imagine that outside, underneath the snow, are those little crocus ready to burst into spring. If we could hear them I'm quite sure it would sound something like this, "Aren't you excited? I just can feel it, can't you? SPRING is in the air!"

At the Gardens there is always this same wonderful feeling stirring as we gardeners anticipate spring and the annual Plant and Used Book Sale, the best and earliest marketplace for plant materials and expertise.

Last year's enormous success of moving the sale into the Gardens has generated a new approach to staffing this event, one we hope that will interest you and find you right out there with us this year. We believe that your membership shows that you, like the crocus, have an instinctive feeling about the coming of spring and the beauty that gardening gives our lives. We need you to join us in what we hope will be fun, well-spent time learning about the plant materials we offer in a "How to, When to, What to and Not to" program planned in conjunction with the sale.

You will emerge ready to start digging as our gift to you. In exchange we would like to have you share this knowledge by working a volunteer shift in an area that best suits your talents. We will try very hard to make these days spent working for the Gardens enjoyable and hope you will join us to continue the success of this annual event and generate the necessary revenue that supports the Gardens.

How to participate?

You can start now by letting us know who you are and that you have two to four hours to participate in a training program and an additional two to four hours in May to volunteer at the annual Plant and Used Book Sale. Simply call me, Jeanne Ruggles, at 321-1223, leaving your name, brief message and phone number or call Carol Knepp at the Gardens' Education department at 575-3751, extension 20.

If you have more time available and would like to serve on the training committee, please let me know—we need you.

The training programs will begin in March and additional information can be found in the February and March issues of this newsletter.

Jeanne Ruggles (321-1223)
Chairman,
1987 Plant and Used Book Sale



Administrative Assistant Sondra Lobato gives directions at the 1986 Plant and Book Sale.

Community Gardens Space Available

Interested in vegetable gardening but don't have the space? The Gardens community vegetable gardening program provides a place to garden (150 square-foot plots), educational opportunities and materials needed to start growing your own fresh produce.

For many people, hands-on experience is the easiest way to learn and novice gardeners are encouraged to "dig right in." All basic materials such as educational handouts, use of tools, fertilizer, water and a variety of popular bedding plants are included in the nominal fee of \$30 for DBG members or \$40 for non-members.

Gardening in a group setting provides participants with the opportunity to be exposed to a wide variety of horticultural techniques

and to be involved in the events that are generated by a community spirit. If you would like to participate in the 1987 community vegetable gardening program, call Lynn Thompson, community gardens coordinator, at 575-3751, to obtain additional information. Space is limited so plan to register early.

Gardeners Wanted

Denver Botanic Gardens is now taking applications for the 1987 full-time seasonal gardening staff that may start as early as March. Some gardening experience and the ability to work outdoors all day in the early spring and through the summer are needed. Pay ranges upward from \$4.50 per hour depending on experience and ability. Call DBG Receptionist Mary Jo Christenson at 575-3751 for an application.

Great Getaways— Future Destinations

Your tour calendar may need some serious considerations and possible revisions. Tours to exciting and alluring places arranged by the Tour Committee of Denver Botanic Gardens have now been scheduled through 1989.



1987 Destinations:

June 14-July 6: Wildflowers of the Pyrenees.

Tour the high valleys and peaks of France and Spain for 21 days in search of wildflowers with Patricia Pachuta, education director at DBG, and Dr. Allan Taylor, professor of linguistics at the University of Colorado and amateur botanist. This tour is limited to 20 people. A \$500 deposit (approximate total cost is \$4,000) is due by February 16, 1987.

Late September or early October:
The Gardens of Kauai.

A week-long mini-tour of one of the lushest islands in the world should prove a welcome change from Denver's frequently changeable fall weather. Look for details in your February newsletter.

1988 Destinations:

February/March: Islands of the Galapagos.

This highly successful trip previously led by DBG Trustee Moras Schubert is being repeated in the spring of 1988. It's never too early to sign up for this trip scheduled to last 21 days. The Galapagos Islands are popular research locations for many obvious reasons and this trip at \$4,000 is certain to delight the botanically inclined.

October: China, the Lure of the Orient.

Best described by the words exotic, exciting and unusual, this trip, led by Executive Director Merle M. Moore, is outstanding. This is his most favorite part of the world!

1989 Destinations:

Spring Desert Flowers.

Escorted by Moras Schubert, this 10-day mini-tour of the American Southwest will be timed for breathtaking displays of desert wildflowers at their peak. The desert is typically thought of as dry and unattractive and participants on this tour will be delighted by the waves of color provided by fields of brilliant poppies and more. This is definitely worth the approximate cost of \$1,000.

June/July: Bloom of the Arctic.

The arctic regions are not all snow covered and cold, nor are they all alike. During this month-long tour, you'll discover the little-known beauties of Greenland, Iceland, Norway and Lapland and you will experience the drama of midsummer above the arctic circle. Your escort, Dr. Allan Taylor, will lead this most unusual trip.

For details on any of these destinations, please contact DBG Assistant Director Andrew Pierce at 575-3751, extension 18.

Oktoberfest— A Success

"Oktoberfest at the Gardens," held on Saturday, October 25, in John C. Mitchell II Hall, was a very successful fund-raising event. Co-chaired by Margaret Garbe and Kay Malo, its silent auction, dinner, entertainment and dancing raised over \$9,000 to support our continuing programs. Other committee chairs were Linda Averbach, MaryLee Beauregard, Joanne Cannon, Kathy Falk, Dawn Fulenwider, Deane Hall, Barbara Hamman, Susie Higginbottom, Chartan Martin, Kim Morrill, Nancy Parker and Genie Waters.

Guiding Program Needs Volunteers

"Dear Guide,

Thank you for showing us the Botanic Gardens. I really liked seeing the bananas and the coffee beans. I learned a lot about the plants and you were very nice.

Your pal"

Teaching enthusiastic children provides wonderful rewards. Some children listen quietly, but an occasional child ignites with enlightenment and questions. The response from this young visitor can improve the worst disposition.

Guides primarily lead school groups on educational tours of the Conservatory, which houses an intriguing collection of semitropical and tropical plants. Preparation begins on January 13 and continues for ten weeks on Tuesdays from 9:30 to 11:30 a.m.

To apply, complete the Education department registration form in this newsletter and mail it to the Gardens with a \$25 check. This fee, for materials, can be refunded after 40 hours of guiding. The program needs volunteers who want and are able to spend a couple hours each week at the Gardens with visiting groups.

A current guide says, "I receive so much satisfaction from leading a group of interested third grade students that nothing can destroy the rest of my day. I especially enjoy listening to them discuss a new concept, such as epiphytes, when they head for their buses."

Please help the Gardens meet the ever-increasing demand for guided tours of our tropical plant collection. Call the Education department, 575-3751, extension 20, for additional details.

DBG
Board member
Susan Sheridan
and Warren
Sheridan enjoy
"Oktoberfest at
the Gardens."



Grass Identification

(six sessions) 1 to 3 p.m.
Saturdays, January 10, 17, 24, 31,
February 7, 14
DBG's Kathryn Kalmbach
Herbarium (located upstairs
above the Library)

The grass family, Poaceae, is one of the largest plant families and is of great economic importance to man. Such staples as corn, rice, wheat, barley and oats are all grasses. Over 300 species of grasses are found in Colorado, dominating the vegetation in many areas.

This class is oriented to give those with little or no knowledge of grasses an understanding of their morphology and the skill to identify them using botanical keys and guides. Students will study numerous native and naturalized grasses in Colorado.

Two booklets prepared by the instructor will be used: *A Simple Guide to the Common Colorado Grasses* and *Keys to the Grasses of the Front Range*. These may be purchased in class. Don't forget your hand lens.

Instructor: Janet L. Wingate, M.S. and Ph.D. in botany from the University of Oklahoma, is currently on the DBG staff working in the Kathryn Kalmbach Herbarium. She is an avid field botanist with much teaching experience.

Fee: \$48 members/\$53 non-members

Limit: 14

Learn the Colorado Ferns

(two sessions) 7 to 9 p.m.
Tuesdays, February 17, 24
DBG's Kathryn Kalmbach
Herbarium (located upstairs
above the Library)

Although only a few are common, Colorado has over 60 species of ferns and fern allies. Learn how this ancient group of plants has adapted to a wide variety of habitats and how to identify the species found here and in nearby states.

Students will learn to recognize major groups and can then identify most true ferns to genus. Fern allies such as *Equisetum*, *Lycopodium*, *Selaginella*, *Isoetes* and *Botrychium* will also be covered, time permitting.

Instructor: Peter Root is a naturalist who became interested in ferns while studying ecology at Rutgers University. He has since observed ferns in various locations throughout North America, Europe and Asia. He is active in the Colorado Native Plant Society, a volunteer at Roxborough State Park and a volunteer at the Kathryn Kalmbach Herbarium.

Fee: \$16 members/\$17.50 non-members



Perennial Pleasures

(five sessions)
Thursdays, January 29,
February 5, 12, 19, 26
7 to 9 p.m. Classroom C

With proper planning and planting, perennials can enhance any garden with long term beauty and reduced maintenance. Discover the pleasures of perennial gardening in this five-session course that covers garden design, soil preparation and cultivation as well as a multitude of suggested plants.

Perennials for specialized situations such as shady areas, will also be discussed. There will be ample opportunity for questions.

Instructor: Andrew Pierce is a horticulturist and is assistant director of DBG. He is an accomplished grower of perennials and alpine plants.

Fee: \$40 members/\$44 non-members

Limit: 18

Plant Identification for Beginners

(six sessions)
Saturdays, February 7, 14, 21, 28
March 7, 14
10 a.m. to noon Classroom B

This is a "How to" rather than a "What is" course for beginners in plant identification who want to learn how to use technical, precise identification books—wherever they are, geographically. Those who take this course should have a basic under-

standing of plant structure and "Botany for Beginners" is the perfect prerequisite.

Suggested text: William A. Weber's *Rocky Mountain Flora* (available in the DBG Gift Shop).

Instructor: Moras L. Shubert, Ph.D., is Professor Emeritus of Botany at the University of Denver and has over 30 years of teaching experience.

Fee: \$48 members/\$53 non-members

Limit: 15

Beginning Bonsai

(three sessions)
Thursdays, February 26,
March 5, 12
7:30 to 10 p.m. Classroom B

This introductory course will cover the historical and cultural techniques of bonsai, the art of creating dwarf trees and shrubs. Instruction on styling, training, potting and general care of bonsai will be included.

Each student will take a completed bonsai home and all materials, including a text, will be provided.

Instructors: Keith Jeppson, past president of Rocky Mountain Bonsai Society, is an experienced bonsai hobbyist of 15 years. Harold Sasaki is a commercial bonsai grower and an experienced bonsai hobbyist of 17 years. Both are capable and lively instructors.

Fee: \$49 members/\$54 non-members (includes a \$19 materials fee for book and bonsai materials) **Limit:** 20

CLASSES

Winter
1987
Denver Botanic Gardens



Rock Garden Construction

(two sessions)

Tuesdays, February 17, 24
7 to 9 p.m. Classroom C

Rocks form a conspicuous element in the Western landscape, from the breaks on the plains, to the cliffs and pinnacles of the mountain peaks. Many gardeners would like to incorporate rocks into their home landscape, but wonder how to do it effectively.

In the first class, students will be shown examples of the appropriate use of rocks in a variety of home gardens and will discuss some of the dos and don'ts of rock garden construction. A list of suppliers and samples of their wares will be provided.

In the second session, participants will have two opportunities to build miniature rock gardens and have their work critiqued constructively.

Instructor: Panayoti Kelaidis is curator of the award-winning Rock Alpine Garden at DBG and is a popular and enthusiastic teacher.

Fee: \$16 members/\$17.50 non-members

Limit: 18

Choice Plants for Colorado Microclimates

(four sessions)

Tuesdays, March 3, 10, 17, 24
7 to 9 p.m. Classroom C

Local gardeners are discovering that there is a wealth of showy wildflowers and ground covers that can provide a long season of bloom and interesting textures year-round. How can these plants be obtained and how are they grown in the home landscape?

In this four-part series, the instructor will treat plants requiring similar cultural conditions together. Attend the series or choose the sessions that suit your individual needs.

Tuesday, March 3 **The Mediterranean Garden**

Many people have a hot strip along the south side of the house or new home owners with little shade often wonder what they can grow on their exposed, sunny sites. Plants that originate in Mediterranean climatic regions have tremendous tolerance to summer heat and drought and often have attractive winter foliage.

Examples of such plants include many familiar bulbs (crocus, tulips), numerous relatives of culinary herbs (wild thymes, oreganos, sages) and such garden mainstays as the yarrows, sun-roses, foxgloves and mulleins.



Tuesday, March 10 **The Steppe Garden**

The climate we have in Colorado is virtually identical to that experienced throughout the famous steppes of Asia. Many of the showiest perennials originate from steppe climates: In Asia this includes many bulbs, dozens of irises, peonies and especially poppies.

In addition, many little-known cushion and mat plants from steppe climates are proving to be durable in Colorado.

Tuesday, March 17 **The Peat Garden**

Several of the choicest groups of wildflowers—in particular the primroses, gentians and members of the heath family—need cool, peaty conditions in which to grow.

This session will highlight 50 easy garden plants for a shady microclimate that can be readily located and grown in Colorado gardens.

Examine ways to integrate peat beds and shady rockwork effectively into the home landscape.

Tuesday, March 24 **The Alpine Crevice Garden**

Although transplanted wild alpine rarely flourish, it's possible to obtain many choice saxifrages, dianthus, androsaces and campanulas locally, or grow them from seed.

A selection of a hundred choice alpine will be presented and students will be shown how to prepare proper soil, how to plant and care for them as well as how to incorporate them into the home landscape.

Instructor: Panayoti Kelaidis

Fee: \$28 members/\$31 non-members for the series of four programs or \$8 members/\$9 non-members each. If you are attending individual programs, be sure to include their dates on the registration form.

Animal Tracks and Signs at Chatfield Arboretum

(two sessions)

Monday, February 16 from 6 to 9 p.m. in Classroom C

and

Sunday, February 22 from 9 a.m. to noon at Chatfield Arboretum

Would you like to see a skunk or a raccoon's den? Can you tell the difference between fox and coyote tracks? What animal prepares for courtship in February? Just how does the beaver survive winter?

Learn about these and other aspects of animal ecology and behavior including which plants are used for food and shelter by certain animal species. A classroom session with slides and mammal study skins will be followed by a field trip to learn plant/animal associations, identification of animal evidence, animal behavior and common mammals of particular habitats.

Meet: in the classroom on February 16 and at the Chatfield Arboretum Schoolhouse on February 22. The Arboretum is located less than ½ mile to the west on Deer Creek Road just off Highway 75 (County Line Road). Please be prompt and wear warm clothing; the group will walk about 1.5-2 miles on level ground at the Arboretum. Don't forget your binoculars and water—lunch is optional.

Instructor: Tina Jones is a wildlife instructor who teaches at the University of Colorado, the Denver Museum of Natural History and Denver Botanic Gardens. She is an active birder with many years of field experience.

Fee: \$7.50 members/\$8.25 non-members

Limit: 20

9 a.m. to noon **Classroom C**

Fee: \$60 members/\$66 non-members

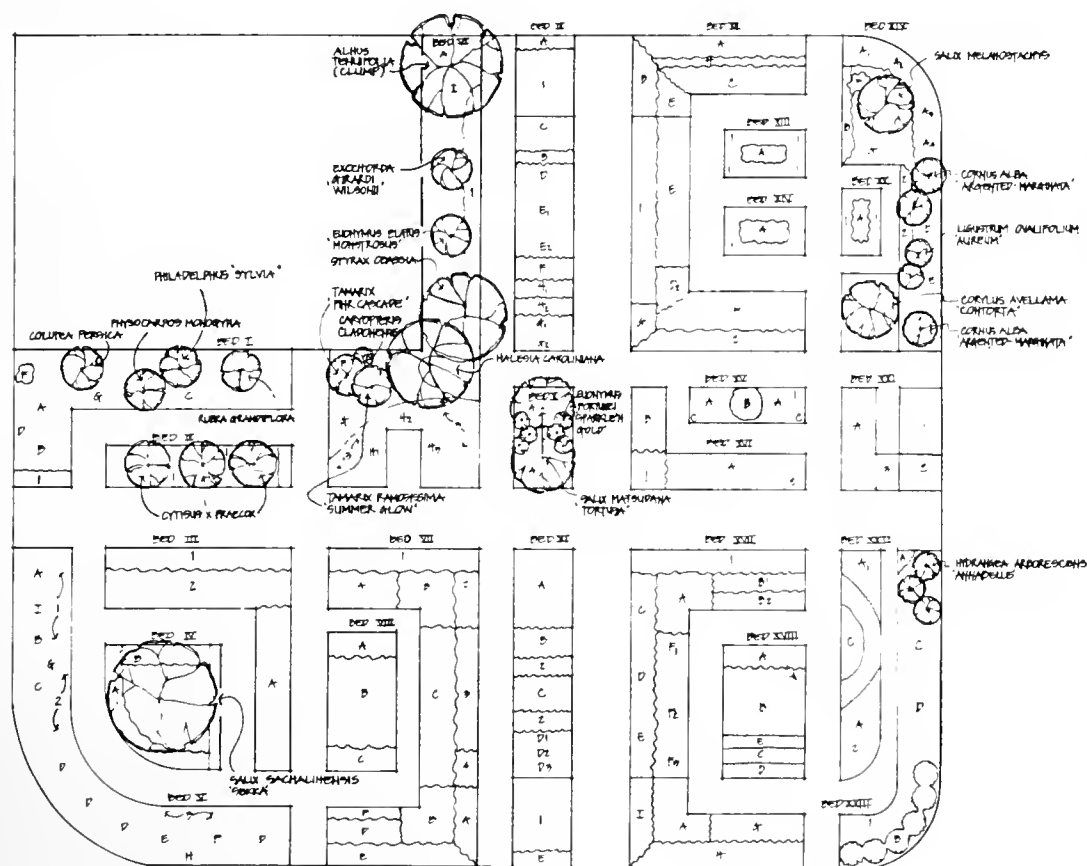
Saturdays, February 14, 28
1 to 5 p.m. Classroom B

Four hours of instruction by slide lecture and demonstration will be interspersed with four hours of discussions, addressing student case studies and tours of the DBG grounds. Topics to be covered are design procedures and principles, Front Range ecology and "xeriscapes," drainage and earthforms, paving, structures and planting design from trees through vines, ground covers

Limit: 15

7 to 9 p.m. Classroom B

Do you want to make more of your landscape? This course will cover basic horticulture and design principles to help you create a landscape that is functional, maintenance- and water-efficient and

Fee: \$80 members/\$88 non-members

Denver
Botanic Gardens

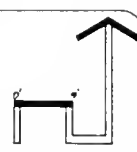
CUTTING GARDEN

DESIGNED BY
GAYLE WEINSTEIN

CONSULTATION BY
ELAINE JACKSON

DRAWN BY
AARON CHAMBERLAIN

MARCH 1965



Basketry Workshop: Heart-Shaped Basket

(one session)

Sunday, February 8

9 a.m. to 5 p.m. Morrison Center

Students in this class will create a traditional Appalachian heart-shaped basket. Using flat reed, they will weave an 8 by 5 inch basket using the square to round technique. This basket can be made with a relatively open or closed base and an optional handle.

Please bring a sack lunch, pruning shears, a sharp knife and a towel to class.

Instructor: Robin Taylor Daugherty is a fiber artist with considerable teaching experience; she has taught weaving, spinning, felting, tapestry-making and basketry throughout Colorado and her work is widely exhibited.

Fee: \$30 members/\$32 non-members (includes \$10 for materials)

Limit: 12

Basketry Techniques: Appalachian Oriole Basket

(one session)

Sunday, February 22

9 a.m. to 5 p.m. Morrison Center

One of the oldest of the Appalachian basketry forms, this basket is named for its resemblance to an oriole's nest although it has also been called a jug basket or a Kentucky egg basket.

It is a simple functional basket woven with flat reed over a combination of round and flat ribs with a braided God's eye; the narrow opening is designed to hold the basket's contents without spilling.

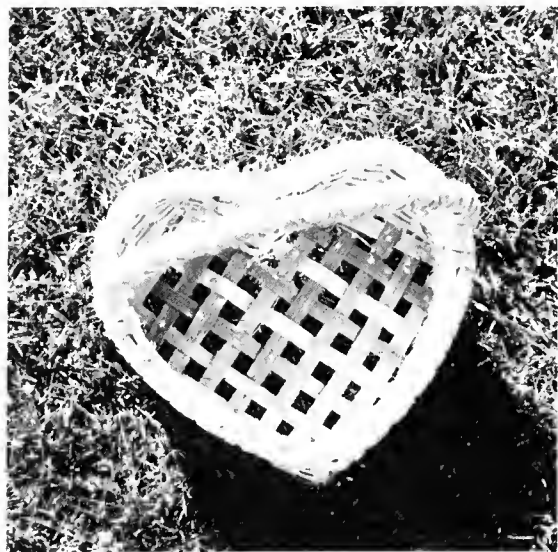
Previous basketry experience is necessary. Please bring a towel, clippers or pruning shears, awl, sharp knife and sack lunch to class.

Instructor: Robin Taylor Daugherty

Fee: \$32 members/\$35 non-members (includes \$12 for materials)

Limit: 12

*Oriole Basket
by Robin Taylor
Daugherty*



*Heart-Shaped
Basket by Robin
Taylor
Daugherty*



Watercolor and Mixed Media Painting

(six sessions)

Wednesdays, January 28,
February 4, 11, 18,
25, March 4

9:30 to 11:30 a.m. Classroom B

Translate your vision of nature into exciting color! Wet-on-wet techniques as well as painting on dry paper will be demonstrated. From quick gestures to slow, contemplative studies, students will explore the rich world of nature at Denver Botanic Gardens. Instruction and demonstrations in assorted media, including pastels, will be provided.

Instructor: Oksana Ross, Ph.D., studied at New York University and Columbia University and has over 30 years of teaching experience. She was formerly on the faculty of the University of Colorado at Denver, Metropolitan State College and Colorado Women's College.

Fee: \$48 members/\$53 non-members

Drawing from Nature

(six sessions)

Fridays, January 30, February 6,
13, 20, 27, March 6

9:30 to 11:30 a.m. Classroom B

Discover the pleasures of sketching the Conservatory's tropical plants on cold, wintry mornings. Instruction will cover basic drawing techniques and materials with an emphasis on tapping the unique creative vision of each participant.

No previous experience is necessary and materials can include drawing pencils, charcoal, colored pencils, pen and ink, and pastels. Please bring drawing pencils and paper no smaller than 8½ by 11 inches to class.

Instructor: Lynette Swanson is a graduate of the Philadelphia College of Art and is a professional artist with national representation of her work.

Fee: \$48 members/\$53 non-members

Limit: 12

Horticultural Therapy Educational Program

Horticultural therapy is an adjunctive therapy using plants and plant-related activities to modify or facilitate change in people. Horticulture has applications in the treatment of cognitive, emotional and physical limiting conditions and disorders. It is used in preventive and health maintenance programming.

Horticultural activities provide a familiar and normalizing environment that is socially acceptable and valued by both men and women. Plants provide a creative outlet for self-expression and opportunities for self-determination, as well as a visible expression of the concepts of change, adaptation and growth.

The following courses will introduce an ongoing professional curriculum in horticultural therapy. They are designed to provide plant-related activities training to human service professionals, volunteers and other interested individuals and will be incorporated into a horticultural therapy certificate program currently under development. The application of specific horticultural skills to client treatment programming is an integral element of each class.

For additional information about the horticultural therapy program at DBG's Morrison Horticultural Demonstration Center (located at 2320 East 11th Avenue, Denver) and its educational programs, please contact Horticultural Therapist Judy Carrier at 575-3751, extension 42.

Horticultural Activities for Nursing Homes

(one session)
Thursday, January 22
9:30 a.m. to 3:30 p.m.
Morrison Center

This five-hour workshop is designed to assist nursing home activity directors, adjunctive therapists, social workers and volunteers develop programs using plants as a stimulating, motivating tool for older adults.

It will include demonstration projects with living, dried and pressed plant material. Through lectures and experimental plant activities, participants will learn program development and horticultural skills to fit the specific needs of nursing home residents.

Please bring a sack lunch; beverage will be provided.

Instructor: Judy Carrier, H.T.R., is the staff horticultural therapist at DBG. She has been a trainer, consultant, clinician and lecturer in



Horticultural Therapy Intern Heather Yancey (left) and DBG Horticultural Therapist Judy Carrier help a student from Anchor Pre-school for Blind Children.

the field of horticultural therapy for 9 years. She has designed horticultural programs for agencies serving persons with physical, mental or emotional disabilities; correctional facilities; facilities for the elderly; disadvantaged persons; and children. Ms. Carrier is a registered horticultural therapist and the current president of the National Council for Therapy and Rehabilitation through Horticulture.

Fee: \$25 members/\$27.50 non-members (includes \$5 for materials)

Introduction to Horticultural Therapy

(one session)
Tuesday, January 27
1 to 2:30 p.m. Morrison Center

Learn what horticultural therapy is and how it is beneficial to special populations. An illustrated lecture and discussion will examine the potential results of using plant-related activities with many types of clients.

In addition, the historical development of horticultural therapy and the current horticultural therapy services available at DBG's Morrison Horticultural Demonstration Center will be covered.

Instructor: Judy Carrier

Fee: Please note that although there is no fee for this program, participants are requested to reserve a spot by using the Education department registration form in this newsletter.

Valentine Crafts

(one session)
Thursday, January 29
9:30 a.m. to noon
Morrison Center

Create a pressed flower card or a fragrant corsage for that someone special on this holiday of hearts. Students will learn simple, inexpensive methods of making these special projects using the appropriate plant material.

Instructor: Judy Carrier

Fee: \$12 members/\$14.50 non-members (includes a \$2 materials fee)

Limit: 15

Developing a Horticultural Therapy Program

(one session)
Tuesday, February 10
8:30 to 11:30 a.m.
Morrison Center

This workshop is designed to lay the groundwork for starting a new program in horticultural therapy or strengthening a fledgling one. Lecture topics will include organizational steps from program concept to establishment of client and agency goals, budget and program development and program policy and documentation.

Instructor: Judy Carrier

Fee: \$12 members/\$13 non-members

Begonias and Bananas: Basic Horticulture for Teachers

(four sessions) 10 a.m. to noon
Saturdays, February 7, 14, 21, 28
Morrison Center

These four two-hour workshops are designed for special education, elementary and pre-school teachers, aides and volunteers who would like to incorporate horticultural experiences into their classrooms. Through lecture/demonstrations and hands-on activities in the Morrison Center's greenhouse, participants will learn simple, successful tools for stimulating learning.

Appropriate topics include the introductory horticultural techniques of watering, repotting and propagating prickly, fuzzy and fragrant plants chosen to excite and stimulate the senses.

A sensory awareness approach will be used to explore the Conservatory as participants learn to share the excitement of our jungle full of tropical treats like the vanilla orchid and the banana tree with their students.

How to use specific plant material in simple participatory classroom activities will be stressed throughout the four weeks and teachers will complete many of the projects themselves. Make your classroom come alive with the excitement that horticulture can provide!

Instructor: Judy Carrier

Fee: \$40 members/\$44 non-members (includes \$8 materials fee) **Limit:** 15

Horticultural Techniques for Therapy Programs

Tuesdays February 17, 24, March
10, 17, April 7, 21, May 5,
19, June 2, 16, 30

(11 sessions) 9:30 to 11:30 a.m.
Morrison Center

A well-rounded skills base in

horticulture is the foundation of a sound horticultural therapy program. This course offers the opportunity to become more knowledgeable and self-assured with a variety of plant materials and gardening activities.

Topics covered include indoor foliage plants; gardening with vegetables, flowers and herbs; landscaping and interior plantscaping; and greenhouse management.

By the end of the 22-hour course, students will have the necessary background for designing a year-round program using living plant materials.

Participants may choose to attend the entire series at a discounted fee or may select those topics that suit their individual needs.

Tuesday, February 17

Indoor Plants: General Requirements including Soils

Tuesday, February 24

Indoor Plants: Propagation and Light Gardening

Tuesday, March 10

Vegetable Gardening: Planning, Designing, Soil Preparation

Tuesday, March 17

Vegetable Gardening: Warm and Cool Season Plants, High Yield Techniques, Pests

Tuesday, April 7

Flower Gardening: Designing and Planting, Annuals and Perennials

Tuesday, April 21

Flower Gardens: Plants for Cutting and Drying

Tuesday, May 5

Herbs: Culture, Design, How to Start Plants

Tuesday, May 19

Simple Outdoor Landscaping: Design, Seasonal Program Materials

Tuesday, June 2

Interior Plantscaping: Design and Tried-and-True Plants

Tuesday, June 16

Greenhouse Management: Design and Construction

Tuesday, June 30

Greenhouse Management: Production and Maintenance

Instructor: Judy Carrier

Fee: Each program is \$9 for members/\$10 for non-members or \$80 for the series of 11 programs for members/\$88 non-members. If you are choosing individual programs, please include the dates on the registration form. Fees include materials.

Group Home Gardens: Sprouting Community Relations

(one session)

Thursday, February 19

12:30 to 3:30 p.m.

Morrison Center

There is an increase in the number of residential group homes for persons with disabilities. Unfortunately, there is often an accompanying increase in stress level for both the home residents and the surrounding neighborhood as the process of community integration occurs. In certain communities, the development of gardening projects around the home has been shown to greatly ease and normalize this transition.

This workshop will outline gardening projects for group home residents that are inexpensive, fun and enriching to the lives of the entire community.

Instructor: Judy Carrier

Fee: \$12 members/\$13 non-members

Denver Botanic Gardens
909 York Street
Denver, Colorado 80206

Fees for courses should be paid in advance by check or money order made out to Denver Botanic Gardens. Since the space is limited in many courses, registration should be mailed in promptly. Your registration will NOT be acknowledged. Your name will be placed on the class list the day your money is received. No enrollments for class by phone please. All courses given are subject to a minimum enrollment of ten students. For further information, please call 575-3751.

Registration Form for Classes and Field Trips

The enclosed check, in the amount of _____, is to cover the registration fees for the following classes:

Name and section of classes _____

Name _____

Address _____

City _____ State _____ Zip _____

Home Tel. No. _____ Business Tel. No. _____

Member of Denver Botanic Gardens? ☐ Yes ☐ No

This Month:

Consider using your old Christmas tree and holiday boughs as windbreak material or winter mulch. Begin studying new seed and nursery catalogs and order early for best selection.

Winter Watering

Winters in Colorado tend to be dry. Often in December, January and February, when the warm chinook winds blow, there is little snow cover and this is when plants need supplemental moisture.

Always water when the air temperatures are above freezing. Deep water trees and shrubs with a "root feeder," and use a sprinkler for shallow-rooted plants such as grasses and perennials.

One to three waterings for the winter should be sufficient depending upon climatic conditions.

Succulent Pests

Q *My wax plant (Hoya carnos) has white cottony fuzz that is sticky at the bases of its leaves and the new growth is small and stunted. How can I control this pest?*

A The insects are undoubtedly mealybugs that find leaf axils favorite feeding places. Control takes persistent efforts but we have found a commercially prepared agricultural soap available in a spray bottle at local garden centers will do the trick. Repeat according to the directions and be sure to check adjacent plants for possible infestations.

Unplanted Bulbs

Q *Despite my best intentions, I still have a paper bag full of tulip bulbs in my refrigerator. Is it too late to plant them?*

A If they are still firm, you should get them in the ground immediately. A spot near the foundation of your house is likely to be warm and unfrozen. Tulips should be planted at a depth of about eight inches.

Paperwhites

Q *Can I save and re-use my forced paperwhite bulbs?*

A Although many forced bulbs, such as tulips and daffodils, are worth naturalizing in an informal planting for further bloom, paperwhites are not hardy in this area. They are native to the milder climate of southern France and must be discarded after flowering.

Amaryllis

Q *My amaryllis flowered beautifully and now appears to be developing seed pods at the top of its flower stalks. How do I go about growing these for more plants?*

A Plant Propagator Jim Borland tells us that since most amaryllis are hybrids, the offspring are not likely to resemble the parents; however, many interesting color variations may result.

To proceed, harvest the seeds when the pods are brown and splitting and plant immediately. Barely cover them with vermiculite. You will have to be patient—it will probably take three years to flower.

Bonsai

Q *Can you recommend proper winter care of a small, hardy native juniper bonsai?*

A DBG Japanese Gardening Specialist Kai Kawahara tells us that native junipers are able to withstand the harsh winter elements with little fussing. Bury the pot outside in a well-lit spot to the top of the soil level. Mulch lightly to protect it and water in the morning on nice warm days (with above freezing temperatures), twice a week if possible.

Mites

Q *Every winter the leaves on my English ivy become speckled with tiny white spots and eventually turn yellow and fall off. What do you suggest?*

A Spider mites may be sucking the plant juices causing the leaves to turn yellow. Check the undersides of the leaves, as well as the leaf axils, for the tiny red or green eight-legged creatures less than 1/50 inch long. In severe attacks, the foliage may have an overall dusty appearance or there may be webbing present.

Mites thrive indoors in the hot, sunny conditions our Colorado winters provide. Before treating with a commercially prepared soap spray, it's a good idea to dislodge as many as possible with a squirt of warm water at the kitchen sink. Proper sanitation, however, is the best prevention: Remove dead leaves regularly and simply discard badly infected plants to avoid infesting others. Regular misting, especially the undersides of the leaves, helps create an environment mites find inhospitable.

The Drs. Green welcome your comments and questions for possible inclusion in this column. Please contact them by writing: Drs. Green, Denver Botanic Gardens, 909 York Street, Denver, Colorado 80206.



CALENDARENDA

Regular Meetings of Plant Societies
A number of plant and horticultural groups meet fairly regularly at the Denver Botanic Gardens. Here is a listing of those groups and a general indication of when they usually meet. For more specific meeting times and locations as well as for information on how to contact a representative of the group, please call the Botanic Gardens switchboard during business hours at 575-3751.

African Violet Society, 4th Thurs. of 7 months; Bonsai Society, 1st & 3rd Tues; Cactus & Succulent Society, 2nd Tues.; Civic Garden Club, 1st Fri.; Colorado Native Plant Society, 4th Wed.; Gloxinia Gesneriad Growers, 1st Sat.; Hemerocallis Society, 3rd Sun. of 4 months; Ikebana International, 4th Fri.; Iris Society, spring & fall dates; Men's Garden Club, 4th Thurs.; Mycological Society, 2nd Mon.; Orchid Society, 1st Tues.; Rock Garden Society, 3rd Wed.; Rose Society, 2nd Thurs.; Ultra Violet Club, 4th Mon.; Water Garden Society, 2nd Sun. of 5 months

C	A	L	E	N	D	A	R
	S	M	T	W	T	F	S
					1 New Year's Day—Gardens Closed	2	3
	4	5	6	7	8	9	10 Grass Identification
11	12	13 Conservatory Guide Class Begins	14	15	16	17	
18	19	20	21	22 Horticultural Activities for Nursing Homes	23	24	
25	26	27 Introduction to Horticultural Therapy	28 Watercolor and Mixed Media Painting	29 Perennial Pleasures, Valentine Crafts	30 Drawing from Nature	31	

Coming Next Month

February 6-15
Garden and Home Show

February 11
Annual Membership Meeting

Denver Botanic Gardens, Inc.
909 York Street
Denver, Colorado 80206
303-575-3751

January 1987

TIME VALUE

Address correction requested



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N E W S

Members' Annual Meeting February 11

Members interested in learning what's in store for Denver Botanic Gardens in 1987 should be sure to attend the Members' Annual Meeting on February 11. The Conservatory, Library and Gift Shop will open at 6:30 p.m. and coffee and dessert will be served at 7. Following a business meeting at 7:45 p.m., Robert Heapes will present an illustrated program at approximately 8:15.

Entitled, "Our Wildflower Heritage—the Colorado Landscape Through the Eyes of the Early Explorers," it will provide the history of where Colorado's early explorers went and what they found. You will see beautiful slides of many of our native plants and learn the origins of their names as well as some charming tales as related by these earliest visitors.

continued on page 3

High Tea a High Spot for Christmas Season

The "Blossoms of Light" Dickens Christmas was a dickens of a success, according to volunteer chairman Doris Buckels.

"High Tea sold out both nights, December 14th and 21st," said Mrs. Buckels. "Our Dickens Christmas theme was carried through beautifully with tea, traditional English recipes from 'Food From Britain,' a marketing arm of the British government that promotes British food products, antique sleighs, the Lobby Court displays in the Victorian theme and, of course, the hand-crafted, Victorian-looking Simpich Character dolls."

Not only were the teas successful,
continued on page 4



Inside:

Classes for Adults page 4

1987 Plant and Used Book Sale page 4

Gardener Florist II Richard Martinelli helps decorate for 1986 "Blossoms of Light."

Spring Gardens on the Mall: DBG Goes Downtown

Denver Botanic Gardens goes downtown. Botanist Horticulturist Larry Latta and his Horticulture Under Glass (HUG) team take a bit of the Botanic Gardens to Prudential Plaza lobby, on Arapahoe between Seventeenth Street and the Sixteenth Street Mall. From February 23 through March 13, spring will beckon to over 12,000 workers in the immediate vicinity, in an attempt to extend an awareness of DBG to this new audience.

Supplementing the lobby display will be educational classes designed especially for this event by Education Director Pat Pachuta and taught by members of our professional staff. All classes will be held in the United Bank of Skyline Suite near the main Seventeenth Street entrance of Prudential Plaza, 1050 Seventeenth Street.

Forty-five minute classes are scheduled for Tuesdays, Wednesdays and Thursdays starting at 11:15 a.m. and again at 12:15 p.m. and participants are welcome to bring a brown bag lunch. On Fridays there will be different plant-related lobby demonstrations.

A complete class schedule follows; for additional information, please call the Education department at 575-3751, extension 20. Classes are small so be sure to register early and come visit spring downtown this February.

A complete class schedule for this program is described on page . For additional information, please call the Education department at 575-3751, extension 20. Classes are small so be sure to register early and come visit spring downtown this February.

Garden and Home Show February 6 to 15

Cruel, cold winds that carry heavy snows frequently blast through Denver in February. Spring may be just around the corner, but winter threatens up till the last possible opportunity leaving Denver residents searching for signs of warmer days.

Members of Denver Botanic Gardens will be recipients of a special treat on February 6, one that will brighten their winter blues. By showing your membership card, you can enter this year's Annual Garden and Home Show at no cost on opening



day, February 6. The theme is "Pacific Trade Winds" and opening day hours are 6 to 10 p.m.

DBG is providing many tropical and subtropical plants to landscape the feature garden. Horticultural displays ranging from equipment to education will be found throughout the show. Energy-efficient design ideas featured by public service and gas companies will offer ways to insulate and use your garage as a work or exercise area.

Hours for this show vary: Sunday hours are noon to 6 p.m. and Monday

through Saturday the doors will be open from noon to 10 p.m. The show ends on February 15. General admission is \$4.50 for adults, \$2 for senior citizens and children of ages 6 to 12, while children under 6 can enter at no charge.

If a round-trip vacation to the Pacific is not in your plans this year, perhaps a visit to Currigan Hall at 14th and Champa Streets is. Take advantage of this year's special agreement and enjoy "Pacific Trade Winds."

Tributes

In memory of Lee Ashley

Alice H. Wood

In memory of Mrs. Sidney Brock

Jane Silverstein Ries

In memory of Anita L. Carey

Margaret S. Carey

Robert & Patricia Cuje

Kay and Tom Fry

The Gefaell Family

The Lester Family

Barbara & Thomas McCarthy

The McCormack Family

The McHugh Family Foundation

Jerry & Priscilla McHugh

Virginia L. Westgaard

In memory of Mr. & Mrs. E. L. DeLand

Mr. & Mrs. Gene H. Thomas

In memory of Robert D. Ellis

Mrs. Robert S. Gast, Jr.

In memory of Elizabeth A. Karg

Grace G. Kimmel

In memory of Arthur R. Kinkel, Jr.

Janet & Jacques Robertson

In memory of Genevieve Lindemann

Anne Whitney Hansen

In memory of Genevieve Searle

Joan Potter

In memory of Kim Sterne

Mr. & Mrs. Bruce C. Sterne

Darcy Chase Sterne

In memory of Minoru Yasui

Dr. William G. Gambill, Jr.

Green Thumb News

Number 87-2 February 1987

Published monthly by the Denver Botanic Gardens Education department, 909 York Street, Denver, Colorado 80206, and edited by Patricia A. Pachuta and Carolyn Knepp. Subscription to this newsletter is a benefit of membership in the Botanic Gardens. For membership information, please write the Membership department at the above address or call 575-3751.

Deadlines for this newsletter are: Major news stories, feature material (including photographs or artwork), and short notes are all due not later than January 19 for March, February 20 for April and March 20 for May.

Please plan in advance and meet deadlines. Late material cannot be used. Stories must be typed, double-spaced, preferably on copy paper provided by the editor. Please call the Education department at 575-3751 for details.



Accredited by the
American Association
of Museums

1986 "Blossoms of Light"



Great Getaways: DBG Pyrenees Tour

What is Spain? A Moorish palace in the moonlight? The ramparts of a ruined Christian castle, perched high on a cliff? Dancers whirling to the clicking of heels, the clatter of castinets, the strumming of guitars or the eerie wail of *cante hondo*? Red poppies in green wheat fields? The scent of orange blossoms?

Spain is all of these things, and many, many more. It is an ancient land where *Homo erectus* hunted elephants 500,000 years ago, where Cro-Magnon man painted stunning frescoes on the ceiling of caves 20,000 years ago. Phoenicians, Greeks and Romans came to Spain and then departed, to be followed by other ephemeral invaders: Visigoths, Franks, Moors.

All left their imprint on the faces of the people and of the land. But Spain is also a new land, a thriving democracy, Europe's youngest. It is a land of modern cities and sophisticated citizens, of chic restaurants and night clubs and theaters, of world-class museums full of the best of ancient and modern art, much of it produced by Spaniards.

Spain is also a land of magnificent natural heritage. High mountain ranges fill the country, and all harbor wildflowers as beautiful as any in the world. The well-watered mountains of the northern part of the country are especially noted for their floral display in the spring and early summer. As the snow melts in the high alpine meadows, under active glaciers, the bulbs spring into flower, creating vast splashes of gold, rose and purple. It is truly a naturalist's and photographer's paradise.

Early next summer, 20 lucky people will get the chance to experience the many attractions of northern Spain, southern France and Andorra. Led by Dr. Allan Taylor of the Department of Linguistics of the University of Colorado and Patricia Pachuta of Denver Botanic Gardens, the tour will visit many of the famous valleys and resorts on both sides of the Pyrenees, from the Bay of Biscay to the Mediterranean. Besides wildflowers and national parks, members of the tour will also visit the beautiful Basque country and the tiny, ancient duchy of Andorra, founded over 800 years ago by Charlemagne.

The deadline to join this unforgettable excursion is February 28. There is still space if you hurry. Contact DBG Assistant Director Andrew Pierce at 575-3751, extension 18, for further details or to sign up. Tomorrow may be too late.



*Harvesting saffron (*Crocus sativus*) in Spain by Pat Pachuta*

Members' Annual Meeting

continued from page 1

An accomplished nature photographer, Mr. Heapes serves as a volunteer naturalist at Roxborough State Park. You might recall his very popular and entertaining lecture, "Ten Thousand Feet of Flowers," presented in honor of Dr. Carl Tempel in November of 1985.

The cost of the Members' Annual

Meeting will be \$6.50 per person and since reservations are limited, please respond early. Just complete the attached reservation form and return with your check to:

Members' Annual Meeting
Denver Botanic Gardens
909 York Street
Denver, CO 80206

Members' Annual Meeting Reservation Form

Name _____

Address _____

City _____ State _____ Zip _____

Daytime Phone _____

From Your 1987 Plant and Used Book Sale Chairman—We Need Your Help!

Because the annual Plant and Used Book Sale has become an important fund-raiser for the Gardens, we are reaching out to the membership to participate this year by not only volunteering to work at the sale but to also learn about the plant materials that are sold. We are currently in the planning phase of our first volunteer training program for this year's sale.

The training program will be held on April 25 in the morning for approximately two hours. An overview of the sale and the plants available will be presented as well as a tour of the Gardens and a description of how the sale will be set up.

Please let us know if you are interested or would like more information.

I look forward to hearing from you.

Jeanne Ruggles (321-1223)
Chairman,
1987 Plant and Used Book Sale

Volunteers Needed for Plant Records

The Outdoor Grounds department needs volunteers to help gather data for its plant records (phenology studies). This is an opportunity to get out on the grounds and observe bud break, leaf expansion and full bloom and will require approximately three to five hours per week during key growing periods.

If you are interested, please call Gayle Weinstein or Julie Dulapa at 575-3751, extension 26, for additional information.

High Tea a High Spot

continued from page 1

but the Gift Shop reported excellent profits from being open those two evenings. The sales of the Simpich doll figures were brisk with DBG receiving 20 percent of the proceeds.

Underwriting from United Bank of Cherry Creek made "Blossoms of Light" possible. The Lobby Court was decorated by the Botanic Gardens' staff and by members of United Floral Industry of Colorado. And to those who worked the hardest, Doris Buckles and her band of Christmas elves, we give the heartiest thanks: Beth Anttil, Patty Barnard, Judy Dempsey, Lin Hulbert, Zoe Kugler, Suzanne McSwain, Pat Nelson, Jerry Sorenson—and, on occasion—their respective spouses.

Bromeliads

Education Department

Additional DBG Classes at Prudential Plaza

The following three courses are a part of "Spring Gardens on the Mall," described on page 2, and will be held in the United Bank of Skyline Suite near the main Seventeenth Street entrance of Prudential Plaza, 1050 Seventeenth Street.



Successful Colorado Gardening

(three sessions)

Tuesdays, February 24,
March 3, 10

Section I: 11:15 a.m. to noon

Section II: 12:15 to 1 p.m.

United Bank of Skyline Suite
near the main Seventeenth Street
entrance of Prudential Plaza,
1050 Seventeenth Street

Please indicate your section on
the registration form.

Colorado's gardening conditions are often considered difficult and challenging particularly to newcomers. Learn about our variable weather and soils and how they affect the plants in our landscapes.

Discover some of the successful plant groups that work here (peonies, irises, daylilies, ornamental grasses) and how to incorporate them into your garden.

Instructor: Gayle Weinstein is a botanist horticulturist who oversees all aspects of our outdoor plant collections. She has taught horticultural subjects at Ohio State University and the Aurora Public Schools Technical Center.

Fee: \$12 members/\$13 non-members

Limit: 20

New Plants from Seeds and Cuttings

(three sessions)

Wednesdays, February 25,
March 4, 11

Section I: 11:15 a.m. to noon

Section II: 12:15 to 1 p.m.

United Bank of Skyline Suite near
the main Seventeenth Street
entrance of Prudential Plaza,
1050 Seventeenth Street

Please indicate your section on
the registration form.

Learn professional plant-multiplying techniques suitable for the home gardener. Complete instruction in seed sowing and taking various types of cuttings (leaf, stem, stem segment, air layering) will be provided along with information on their care afterward.

Appropriate soil mixes and containers will also be covered.

Instructor: Jim Borland is plant propagator at DBG; his previous professional experience includes extensive work with native plants.

Fee: \$12 members/\$13 non-members

Limit: 20

Easy, Exotic House Plants

(three sessions)

Thursdays, February 26,
March 5, 12

Section I: 11:15 a.m. to noon

Section II: 12:15 to 1 p.m.

United Bank of Skyline Suite near
the main Seventeenth Street
entrance of Prudential Plaza,
1050 Seventeenth Street

Please indicate your section on
the registration form.

Tired of philodendrons and Swedish ivy? A wealth of unusual plants is native to the tropical regions of the world yet very few are grown by the average house plant enthusiast.

Discover some of these as well as the necessary conditions to keep them thriving; learn to diagnose and treat typical problems.

Instructor: Gary Davis is a gardener florist at DBG whose responsibilities include the bromeliad and orchid collections.

Fee: \$12 members/\$13 non-members

Limit: 20



WILDFLOWERS of the PYRENEES

June 14 - July 5, 1987

There are just a "few" reasons why you **must** join the Denver Botanic Gardens on this fabulous 23-day tour which features the high alpine meadows of the Picos de Europa and the Pyrenees.

EXPLORE...unspoiled Spain...the Sierra de Guadarrama high mountain ranges...abundant wildflowers...the 18th century palace and gardens at La Granja...high aqueduct and Alcazar in Segovia ...the Cordillera Cantabrica...magnificent caves of Altamira with rock paintings over 20,000 years old...scores of species of spring flowering wild flowers...the world renowned glacial valley of magnificent Cirque de Gavarnie...the cozy spa town of Bagnieres de Luchon...the early Middle Ages sites of Andorra...the restored medieval citadel in the city of Carcassonne...beautiful little spa town of Vernet-les-Bains...modern art of Picasso, Miro and Salvador Dali in Barcelona...mud baths...historic monuments, museums and monasteries....need we say more??

Along with these fabulous sightseeing highlights, this tour includes:



- * * The finest in Spanish, French and Basque cuisine with breakfast and dinner included daily
- * First class hotels and quaint country paradors
- * Roundtrip airfare from Denver
- * * * * The expertise and leadership of linguist and amateur botanist DR. ALLAN TAYLOR

This exclusive tour is limited to 20 people.
A \$500 deposit is due by February 28, 1987 to reserve your space

Please call the Group Department at:

Travel associates, inc. 759-8666



Plant Identification for Beginners

(six sessions)

Saturdays, February 7, 14, 21, 28
March 7, 14

10 a.m. to noon Classroom B

This is a "How to" rather than a "What is" course for beginners in plant identification who want to learn how to use technical, precise identification books—wherever they are, geographically. Those who take this course should have a basic understanding of plant structure and "Botany for Beginners" is the perfect prerequisite.

Suggested text: William A. Weber's *Rocky Mountain Flora* (available in the DBG Gift Shop).

Instructor: Moras L. Shubert, Ph.D., is Professor Emeritus of Botany at the University of Denver and has over 30 years of teaching experience.

Fee: \$48 members/\$53 non-members

Limit: 15

Landscape Design for Colorado Homeowners

(ten sessions)

Wednesdays, February 11, 18, 25,
March 4, 11, 18, 25,
April 1, 8, 15

7 to 9 p.m. Classroom B

Do you want to make more of your landscape? This course will cover basic horticulture and design principles to help you create a landscape that is functional, maintenance- and water-efficient and beautiful. You will also learn about a variety of native and common plant materials—from perennials to trees—all for use in Colorado.

Through slide programs, field trips, input from local professionals and work from each person's landscape, we will renovate or create new "living spaces" for each participant.

Come with a 24 by 36 inch drawing board, paper, two pencils, eraser, engineer's triangular ruler and all of your ideas.

Instructor: Anna Thurston is a CSU graduate in landscape horticulture design. She has owned a landscape design and architectural firm for four years and is presently pursuing her MLA degree.

Fee: \$80 members/\$88 non-members

Xeriscape Gardening

(five sessions)

Saturdays February 14, 21, (skip
February 28), March 7,
14, 21

9 a.m. to noon Classroom C

Reconsider traditional landscaping



concepts to add a variety of interesting dryland plants into your garden. Learn about their different habitats, from the desert to the grasslands, and apply this information to use and grow these plants successfully.

This course will include design principles and the culture and maintenance of a wealth of plants with special emphasis on the non-traditional. Curl-leaf mountain mahogany, rabbitbrush, cliff rose and paper flower are all examples of beautiful yet untapped dryland plants that Colorado has to offer.

Instructor: Gayle Weinstein is a botanist-horticulturist at DBG and oversees all aspects of our outdoor plant collections.

Fee: \$60 members/\$66 non-members

Designing the Small Home Landscape

(two sessions)

Saturdays, February 14, 28
1 to 5 p.m. Classroom B

In this course, students will learn how to plan a small site landscape for a new or existing home. Appropriate small landscapes include small city or suburban lots, patio homes and townhouses and courtyards.

Four hours of instruction by slide lecture and demonstration will be interspersed with four hours of discussions, addressing student case studies and tours of the DBG grounds. Topics to be covered are design

procedures and principles, Front Range ecology and "xeriscapes," drainage and earthforms, paving, structures and planting design from trees through vines, ground covers and perennials. Printed materials and local resources are included.

Prior to the beginning of class, registrants will receive directions for making site drawings and a list of landscape needs. In order to complete this pre-class assignment, students should register by February 5.

Instructor: Jan Caniglia, MLA, ASLA, has practiced landscape architecture for seven years in the areas of site design, environmental planning and community design. She has taught numerous classes on Colorado landscape design and historical landscapes.

Fee: \$35 members/\$38 non-members (includes \$3 for materials)

Limit: 15

Animal Tracks and Signs at Chatfield Arboretum

(two sessions)

Monday, February 16 from 6 to 9
p.m. in Classroom C

and

Sunday, February 22 from 9 a.m.
to noon at Chatfield
Arboretum

Learn about animal ecology and behavior including which plants are used for food and shelter by certain animal species. A classroom session with slides and mammal study skins

CLASSES

Winter
1987
Denver Botanic Gardens



will be followed by a field trip to learn plant/animal associations, identification of animal evidence, animal behavior and common mammals of particular habitats.

Meet: in the classroom on February 16 and at the Chatfield Arboretum Schoolhouse on February 22. The Arboretum is located less than ½ mile to the west on Deer Creek Road just off Highway 75 (County Line Road). Please be prompt and wear warm clothing; the group will walk about 1.5-2 miles on level ground at the Arboretum. Don't forget your binoculars and water—lunch is optional.

Instructor: Tina Jones is a wildlife instructor who teaches at the University of Colorado, the Denver Museum of Natural History and Denver Botanic Gardens. She is an active birder with many years of field experience.

Fee: \$7.50 members/\$8.25 non-members

Rock Garden Construction

(two sessions)

Tuesdays, February 17, 24
7 to 9 p.m. Classroom C

In the first class, students will be shown examples of the appropriate use of rocks in a variety of home gardens and will discuss some of the dos and don'ts of rock garden construction. A list of suppliers and samples of their wares will be provided.

In the second session, participants will have two opportunities to build miniature rock gardens and have their work critiqued constructively.

Instructor: Panayoti Kelaidis is curator of the award-winning Rock Alpine Garden at DBG and is a popular and enthusiastic teacher.

Fee: \$16 members/\$17.50 non-members

Limit: 18

Learn the Colorado Ferns

(two sessions) 7 to 9 p.m.

Tuesdays, February 17, 24
DBG's Kathryn Kalmbach Herbarium (located upstairs above the Library)

Although only a few are common, Colorado has over 60 species of ferns and fern allies. Learn how this ancient group of plants has adapted to a wide variety of habitats and how to identify the species found here and in nearby states.

Instructor: Peter Root is a naturalist who became interested in ferns while



studying ecology at Rutgers University.

Fee: \$16 members/\$17.50 non-members

Choice Plants for Colorado Microclimates

(four sessions)

Tuesdays, March 3, 10, 17, 24
7 to 9 p.m. Classroom C

In this four-part series, the instructor will treat plants requiring similar cultural conditions together. Attend the series or choose the sessions that suit your individual needs.

Tuesday, March 3

The Mediterranean Garden

Many people have a hot strip along the south side of the house or new home owners with little shade often wonder what they can grow on their exposed, sunny sites. Plants that originate in Mediterranean climatic regions have tremendous tolerance to summer heat and drought and often have attractive winter foliage.

Tuesday, March 10

The Steppe Garden

The climate we have in Colorado is virtually identical to that experienced throughout the famous steppes of Asia. Many of the showiest perennials originate from steppe climates: In Asia this includes many bulbs, dozens of irises, peonies and especially poppies.

Tuesday, March 17

The Peat Garden

Several of the choicest groups of wildflowers—in particular the primroses, gentians and members of the heath family—need cool, peaty conditions in which to grow.

This session will highlight 50 easy garden plants for a shady microclimate that can be readily located and grown in Colorado gardens.

Tuesday, March 24

The Alpine Crevice Garden

A selection of a hundred choice alpine plants will be presented and students will be shown how to prepare proper soil, how to plant and care for them as well as how to incorporate them into the home landscape.

Instructor: Panayoti Kelaidis

Fee: \$28 members/\$31 non-members for the series of four programs or \$8 members/\$9 non-members each. If you are attending individual programs, be sure to include their dates on the registration form.

Flower Gardening Basics

(five sessions)

Tuesdays, March 3, 10, 17, 24, 31
7 to 9 p.m. Classroom A

This course is an opportunity for beginners and newcomers to gardening in Colorado to learn the basic culture of many different groups of flowering plants. Explore the effective use of annuals, perennials, rock garden plants, shade-lovers and bulbs.

Included topics: soils and bed preparation, seed sowing, planting, watering, weeding and disease and pest control.

Instructor: Andrew Pierce is a horticulturist and is assistant director of DBG.

Fee: \$40 members/\$44 non-members

Advanced Grass Identification

(four sessions) 9 a.m. to noon
Saturdays, March 14, 21, 28,
April 4

DBG's Kathryn Kalmbach Herbarium (located upstairs above the library)

Over 300 species of grasses are found in Colorado, dominating the vegetation in many areas. In spite of the abundance and importance of this group, most amateur botanists ignore grasses because they are considered too difficult.

Students should already be familiar with grass morphology and have some experience in grass identification using botanical keys. Numerous native and naturalized Colorado grasses will be identified.

Instructor: Janet L. Wingate, M.S. and Ph.D. in botany from the University of Oklahoma, is currently on the DBG staff working in the Kathryn Kalmbach Herbarium. She is an avid field botanist with much teaching experience.

Fee: \$48 members/\$53 non-members

Limit: 8

Beginning Ikebana Lessons

(four sessions) 10 a.m. to noon
Saturdays, March 28,
April 4, 11, 18

DBG's Morrison Center at 2320 East 11th Avenue

Ikebana is the Japanese art of flower arranging perfected through centuries of tradition. Often considered the epitome of elegant simplicity, it reflects the Japanese understanding of and deep respect for nature.

In this introductory course, students will view slides and gain a preliminary understanding of four schools of arranging: Ikenobo, Chiko, Ohara and Sogetsu. They will practice and take home beginning styles of light, airy arrangements using spring flowers such as irises and pussy willows.

Instructor: Joan Wooldridge is a certified teacher of Sogetsu with instruction in the schools of Ohara and Ikenobo. She recently returned from the Fifth World International Ikebana Convention in Kyoto where she served as the official delegate from the Denver chapter.

Fee: \$44 members/\$47 non-members (includes \$12 for flowers)

Materials such as containers and flower holders will be approximately \$27-40 and are available in the DBG Gift Shop.

Limit: 12

Basic Pruning Principles

Saturday, March 7 (one session)
1:30 to 3:30 p.m. **Classroom C**

Properly pruned plants are healthier as well as more aesthetically pleasing. In this introductory class, students will learn the basic principles, plant responses and timing involved in pruning deciduous and evergreen plants.

Instructors: DBG Botanist Horticulturist Gayle Weinstein and Horticultural Assistant Julie Dulapa.

Fee: \$8 members/\$9 non-members

Pruning Workshop

Saturday, March 14 (one session)
1:30 to 3:30 p.m. **Classroom C**

This is a hands-on class for those who have taken Basic Pruning Principles on March 7. In it, students will learn to prune using plants on the Gardens' grounds. Participation and good supervision are certain to result in well-shaped specimens in your own yard.

Instructors: DBG Botanist Horticulturist Gayle Weinstein and Horticultural Assistant Julie Dulapa.

Fee: \$8 members/\$9 non-members

Ground Covers and Vines for Your Garden

(two sessions)
Wednesday, March 11
7:15 to 9:15 p.m.
Sunday, March 15 (field trip)
2 to 5 p.m.
Classroom A on March 11

This class will focus on over 30 evergreen and deciduous ground covers and vines for Denver area gardens. The distinguishing and ornamental characteristics will be shown through the use of slides as well as a field trip.

A discussion of their natural history, hardiness and culture will also be included.

Instructor: Jeffrey Frank studied landscape architecture at Pennsylvania State University and the University of Virginia and is presently employed as a landscape architect in Denver.

Fee: \$13 members/\$14.25 non-members

Small Flowering Trees for Denver

(three sessions including a field trip)
Wednesday, March 18, 25 from
7:15 to 9:15 p.m. **Classroom C**
and Sunday, March 29
from 2 to 5 p.m.

This class will familiarize students

small hardy trees that are hardy to the Denver area. Through the use of slides students will view each of the species during all four seasons and a field trip will provide a closer look.

Instructor: Jeffrey Frank

Fee: \$21 members/\$23 non-members

Basketry Techniques: Appalachian Oriole Basket

(one session)
Sunday, February 22
9 a.m. to 5 p.m. **Morrison Center**

One of the oldest of the Appalachian basketry forms, this basket is named for its resemblance to an oriole's nest although it has also been called a jug basket or a Kentucky egg basket.

It is a simple functional basket woven with flat reed over a combination of round and flat ribs with a braided God's eye; the narrow opening is designed to hold the basket's contents without spilling.

Previous basketry experience is necessary. Please bring a towel, clippers or pruning shears, awl, sharp knife and sack lunch to class.

Instructor: Robin Taylor Daugherty

Fee: \$32 members/\$35 non-members (includes \$12 for materials)



Shaker Cat's Head Basket by Robin Taylor Daugherty

Basketry Workshop: Cat's Head Basket

(one session)
Saturday, March 14
9 a.m. to 5 p.m. **Classroom A**

Learn to make a traditional 19th century Shaker basket originally designed to hold heavier vegetables. This simply woven style has a square bottom and a round top with a convex base.

No previous basketry experience is necessary. Please bring a towel, sharp knife, shears, awl, pinch-type clothespins and a sack lunch.

Instructor: Robin Taylor Daugherty

Fee: \$32 members/\$35 non-members (includes \$12 for materials)

8 Basketry Workshop: Heart-Shaped Basket

(one session)

Sunday, February 8

9 a.m. to 5 p.m. Morrison Center

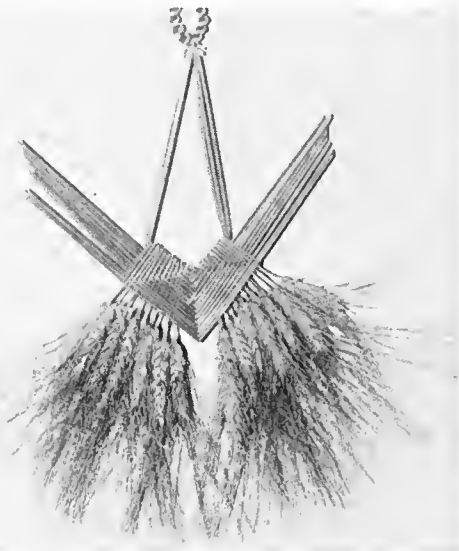
Students in this class will create a traditional Appalachian heart-shaped basket. Using flat reed, they will weave an 8 by 5 inch basket using the square to round technique. This basket can be made with a relatively open or closed base and an optional handle.

Please bring a sack lunch, pruning shears, a sharp knife and a towel to class.

Instructor: Robin Taylor Daugherty

Fee: \$30 members/\$32 non-members (includes \$10 for materials)

Limit: 12



House Blessing
by Wheat
Weaving
Instructor
Maureen
McGowan

Wheat Weaving Workshop: House Blessing

(one session) Saturday, March 14
1:30 to 3:30 p.m. Classroom B

Learn to make the traditional house blessing to adorn your door and greet guests. Prerequisite: attendance at any previous wheat weaving class. Please bring a pair of scissors to class.

Instructor: Maureen McGowan is a horticultural instructor and consultant who has taught various craft classes at the Chicago Botanic Gardens and DBG.

Fee: \$14 members/\$15 non-members (includes \$6 for materials)

Horticultural Therapy Educational Program

Horticultural therapy is an adjunctive therapy using plants and plant-related activities to modify or facilitate change in people. Horticulture has applications in the treatment of cognitive, emotional and physical limiting conditions and disorders. It is used in preventive and health maintenance programming.

The following courses will introduce an ongoing professional curriculum in horticultural therapy. They are designed to provide plant-related activities training to human service professionals, volunteers and other interested individuals and will be incorporated into a horticultural therapy certificate program currently under development. The application of specific horticultural skills to client treatment programming is an integral element of each class.

For additional information about the horticultural therapy program at DBG's Morrison Horticultural Demonstration Center (located at 2320 East 11th Avenue, Denver) and its educational programs, please contact Horticultural Therapist Judy Carrier at 575-3751, extension 42.

Designing a Summer Horticultural Therapy Program

(one session) Tuesday, March 31
9:30 a.m. to 12:30 p.m.
Morrison Center

Summer is easily the busiest time of year in a horticultural therapy program and an already over-extended staff might wonder if vegetable, flower and fruit gardening is really worth the effort. But, when the daily harvests of August fill the arms of smiling clients, the use of gardening as an effective therapeutic tool becomes clear.

This workshop will help human service providers plan and implement summer horticultural programs that

will complement their agencies' services and create harmony in the lives of clients and themselves.

Activity plans, scheduling techniques, cooperative programming and planting and harvesting for winter activities will be covered.

Instructor: Judy Carrier

Fee: \$12 members/\$13.50 non-members

Limit: 25

Designing Adaptive Gardens

(three sessions)

9:30 to 11:30 a.m.

Thursdays, March 12, 19, 26
Morrison Center

This course is designed to assist human service providers, persons with physical disabilities and/or their families plan an accessible gardening area for their agency or home.

An illustrated lecture will show a variety of adaptive garden designs using a wide range of construction materials. Plants and soils suitable for raised beds and planters will be discussed.

With the instructor's guidance, students will design their own accessible garden plan including planters and raised beds to fit their unique needs and abilities.

Construction materials and basic carpentry and masonry techniques will be covered. Students will participate in a hands-on construction project during the course.

Instructors: DBG Horticultural Therapist Judy Carrier and Carpenter Ron Albright. A cabinetry specialist, Mr. Albright has been a professional carpenter for 22 years.

Fee: \$30 members/\$32.50 non-members (includes a \$6 materials fee)

Limit: 15

Denver Botanic Gardens
909 York Street
Denver, Colorado 80206

Fees for courses should be paid in advance by check or money order made out to Denver Botanic Gardens. Since the space is limited in many courses, registration should be mailed in promptly. Your registration will NOT be acknowledged. Your name will be placed on the class list the day your money is received. No enrollments for class by phone please. All courses given are subject to a minimum enrollment of ten students. For further information, please call 575-3751.

Registration Form for Classes and Field Trips

The enclosed check, in the amount of _____, is to cover the registration fees for the following classes:

Name and section of classes _____

Name _____

Address _____

City _____ State _____ Zip _____

Home Tel. No. _____ Business Tel. No. _____

Member of Denver Botanic Gardens? ☐ Yes ☐ No

Helen Fowler Library
Volume 9, No. 6
February 1987

Librarian:
Solange
Gignac

Gathering the Desert

By Gary Paul Nabhan. The University of Arizona Press, Tucson, 1985. \$19.95. QK 211 N33 1985

There has been a rather incredible amount of hoopla surrounding the publication of this book and its subsequently being awarded *The John Burroughs Medal* for the best book on natural history written by an American in 1985. I can assure you that this book is eminently deserving of both the award and the publicity.

The author is Gary Paul Nabhan, Ph.D., assistant director for Research and Collections at the Phoenix Desert Botanical Garden, and more importantly, director and co-founder of Native Seed/SEARCH, a non-profit organization in Tucson, Arizona, which maintains seed banks of indigenous Southwestern plants.

For the "semi" uninitiated who read the article "The Forgotten Seed" by Richard Johnson in the April 6, 1986, *Empire Magazine* of *The Denver Post*, one thing needs to be clarified: This book is not, as the author of the aforementioned article implied, a large pictorial "foragers" guide listing and discussing 425 native edible plants in a handbook format. For those expecting hundreds of photos and an encyclopedic listing of plants, there will be an initial disappointment.

If you care enough to go on and read the book in its entirety, Nabhan discusses in very great and well-researched detail, season by season, one dozen Sonoran desert food plants. He traces their history of use by various Indian tribes of the Sonoran Desert and details the various reasons for their relative lack of use in modern Southwestern agriculture and their various genetic qualities such as heat and drought-resistance, which could alleviate many of the problems of diminishing groundwater sources.



Several of the chapters I found most interesting dealt with mesquite trees, tepary beans, sandfood (*Pholisma sonorae*), devil's claws and wild desert gourds. Not only do you sense Nabhan's strong empathy for the Native American people, you also leave impressed that he and his colleagues insist on thoroughly researching the plants discussed rather than making a few simple observations and drawing incorrect conclusions.

In his research he remains open-minded and surprises himself as often as he surprises the reader. An

example of this is found in his work with the wild desert coyote gourd, *Cucurbita digitata*. Most squash growers are aware that the bitterness gene found in these wild gourd species is easily passed into domestic squashes planted in fields where the wild gourds grow. What Nabhan found to his amazement was that the non-bitter gene can also be transmitted from the cultivated squashes into the wild gourd populations providing sweet, edible wild gourds!

Nabhan has a terrific sense of humor, and I like the fact that he *continued on page 10*

THE REVIEWERS

Carolyn Crawford—
botanical
illustrator

Bob Heapes—
DBG
volunteer and
naturalist

Terri Huck—
1986 summer
intern

Hazel Kellogg—
DBG
volunteer

didn't get overly technical in his plant discussions. He placed the technical and bibliographic information at the end of the book in what he calls a "Bibliographic Essay." Therefore, I was not left hanging as to where to find more information on sandfood, a rather esoteric root parasite in a very small family (Lennoaceae).

I will admit to wishing to see color photographs of the 12 plants Nabhan discussed. The pencil illustrations in black and white by illustrator Paul Mirocha are excellent, but I'm not going to be satisfied until I find a color photograph of sandfood. Also, I feel the book's impact would have been greater had he chosen to place the chapter on panicgrass (*Panicum sonorum*) at the very end. In this most poignant of chapters he essentially sums up what the whole purpose of the book is: an eloquent plea to restore these native plants to greater use in contemporary arid land agriculture, to preserve them in seed banks and return them to the people who have nearly forgotten their existence. The messianic tone created by Nabhan in this chapter has cast its spell over this reader. Gary Nabhan has written a book that will not be forgotten.

Carolyn Crawford



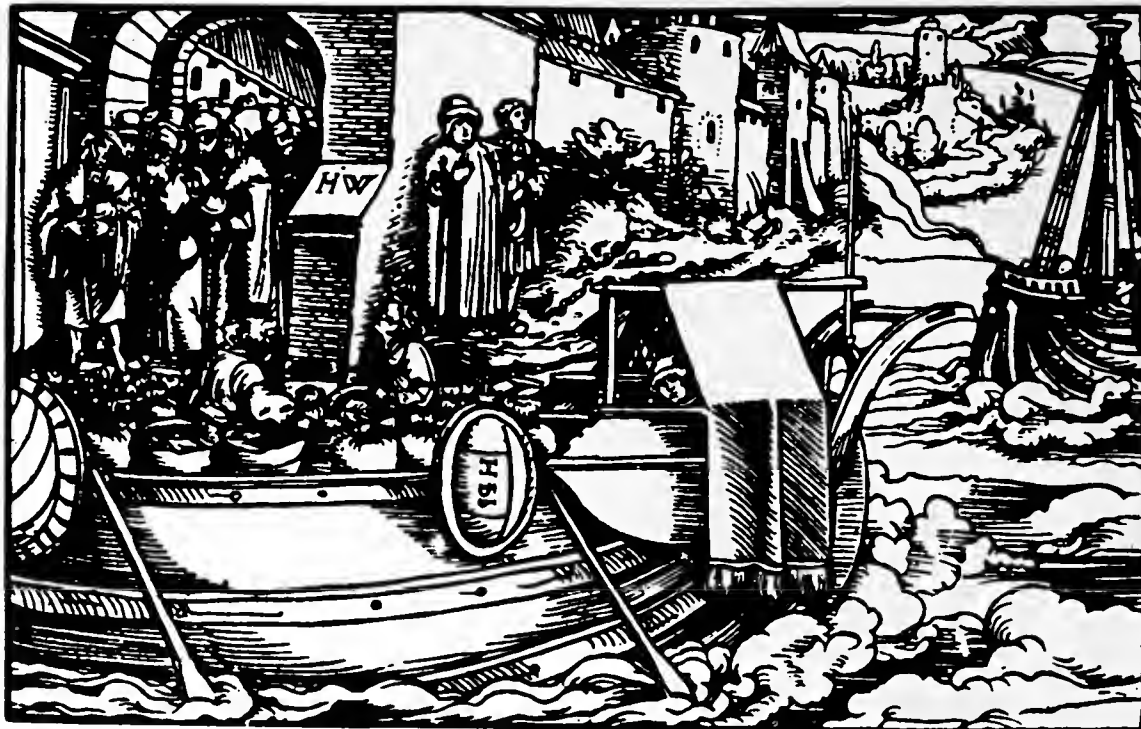
Farther Afield: A Gardener's Excursions

By Allen Lacy Farrar, Straus, Giroux, New York, 1986. \$17.95. SB 455.3 L3Fa 1986

Allen Lacy writes in a "down-home" easy style that is so appealing for casual reading. His style also serves him well for the telling of his forays into the horticultural world. Each chapter is complete in itself, 3 to 17 pages, and in content, from a story on cats and plants, to a visit to a seed farm in Costa Rica. Written with soft humor, the ever-varying articles (for each chapter is like a magazine article) are delightful. He displays a good sense of ordinary pleasures, entertaining me with his whimsical "The Sedum Family Reunion." Yet, his steady view of the destruction of the rain forests is sobering.

I found *Farther Afield* to be the type of book you pick up, read a few chapters, then put away for a few days. This is a great nightstand book and an excellent gift for gardening friends.

Bob Heapes



Spices, Condiments and Seasonings

By Kenneth T. Farrell. The AVI Publishing Company, Inc., Westport, Connecticut, 1985. \$55.00. TX 406 F37 1985

Although written to be used as a textbook, this literary gem includes a wealth of information that should be interesting to anyone who likes plants and well-flavored food.

There are five distinct divisions in this book:

Part One introduces the reader to the significance of spices throughout centuries of history, beginning 5,000 years ago.

Part Two describes 50 of the more prominent spices, culinary herbs and spice blends. Both common and botanical names are given as well as the family name combined with photographs and sketches for easy identification. With each plant historic and legendary facts are compared, including information about the origins of the plant, where it was cultivated, federal specifications, chemical composition, nutritional data and household and commercial uses.

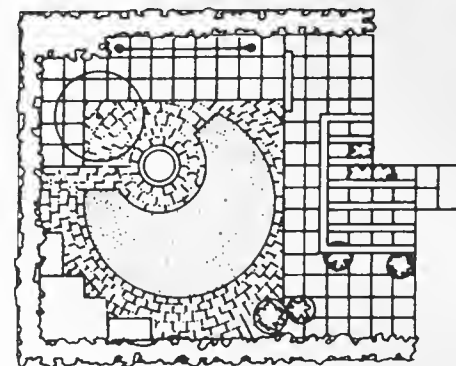
Part Three discusses spice extractives and soluble spices and how they may be used instead of freshly ground spice. Some spice substitutes for salt are suggested.

Over 100 condiments and sauces are mentioned in Part Four. Are you searching for the formula to prepare 17 gallons of worcestershire sauce?

Part Five offers formulas for seasoning prepared meats, bouillons, instant soups, gravies and other meat-related products.

At the conclusion of each section there is a complete bibliography along with a detailed index at the end of the book.

Hazel Kellogg



Garden Planning and Design

By P. Francis Hunt. Arco Publishing, Inc., New York, 1985. \$11.95. SB 473 H867 1985

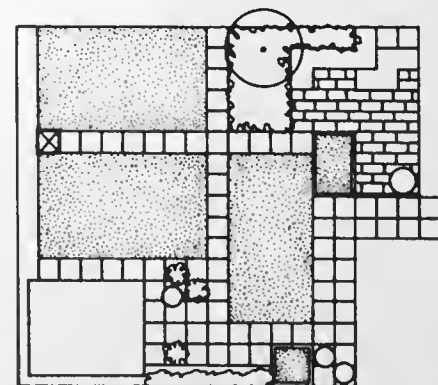
The author wishes to give readers detailed instructions on how to design their gardens. The chapters reveal step-by-step processes detailing the accomplishment of this purpose.

The readers are shown how to assess the space available for a garden, weighing the difficulties and the qualities. Soil, access, climate and existing plants are some of the topics discussed.

Furthermore, the readers are encouraged to develop a mental picture of their perfect garden and to proceed to put the ideas presented in this book into workable plans to obtain the desired effect.

Sample plans are included to facilitate implementation. The numerous colored photos and illustrations enhance the purpose of this book.

Terri Huck



This Month:

Winter's colder temperatures and decreased light intensity often encourage leaf fall on house plants. Moving plants closer to a window (west and south exposures are best) may help but don't let the plants actually touch the glass—frost damage may result.

To help prevent broken trees and shrubs due to snow damage, it's a good idea to shake off the excess load with a rake or broom. Timely, correct pruning is important and this will be covered in next month's column. Our worst "bough-breaking," however, is September and May, when foliage is present.

Fig Leaf Drop

Q Please tell me why my weeping fig (*Ficus benjamina*) is losing its leaves.

A Several reasons for this common occurrence were expressed by DBG Botanist Horticulturist Larry Latta, who oversees the greenhouse collections: There may be inadequate light or overwatering which deprives the roots of essential oxygen. Or, the fig may need repotting. Consider also a possible pest infestation or a root fungus.

Although any of these four reasons may be limiting, you could have a combination of problems. Necessary cultural requirements include some

sunlight, a pot with good soil and a drainage hole, proper watering and occasional fertilizing.

Early Bulbs

Q Why are my bulbs already poking up through the ground?

A During our occasional winter warm spells, nature just tends to take its course. There is very little you can do to prevent it, provided your bulbs were planted at the proper depth. This new foliage is quite hardy but you might consider applying a light, open mulch such as pine boughs to cover up the shoots until the next warm spell again accelerates their growth.

Poinsettias

Q I keep hearing conflicting reports about whether or not the poinsettia is poisonous. Is it?

A DBG Assistant Director Andrew Pierce reports that this is one of our most common questions. The poinsettia is not poisonous despite the fact that it is a member of the spurge family (*Euphorbiaceae*) which has many toxic members.

Azaleas

Q How do I keep my holiday azalea in good condition?

A This popular gift plant requires a cool and bright location with at least four hours of direct sunlight a day. Keep the soil moist and after the

flowers fade, apply an acid-type fertilizer according to directions until late summer.

Epiphytic Cacti

Q What is the best soil mix for my Christmas cactus? Where can I purchase a night-blooming cereus?

A Epiphytic, or tree-dwelling cacti, are natives of subtropical South American forests that often grow perched on other plants or as terrestrials (in the ground) at the edge of the forest cover. They are not found on the open plain and are grown somewhat differently than other cacti.

The best soil medium is a water-retentive mix much like that used for many other house plants. Try two parts peat moss, one part packaged potting soil and one part perlite for good results.

The potentially large night-blooming cereus is not commonly found in garden centers but our librarian, Solange Gignac, would be happy to provide you with a catalog source, if consulted.

The Drs. Green welcome your comments and questions for possible inclusion in this column. Please contact them by writing: Drs. Green, Denver Botanic Gardens, 909 York Street, Denver, Colorado 80206.



Morrison
Horticultural
Demonstration
Center

Green

Thumb

Denver Botanic Gardens

March 1987

Number 87-3



NEWS



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Agave spp.

Cactus and Succulent Show and Sale March 14-15

It's going to be a prickly situation at Denver Botanic Gardens on Saturday and Sunday, March 14-15, during the annual Cactus and Succulent Show and Sale. Between 10 a.m. and 4:45 p.m. visitors will have to be watchful of where they reach while in John C. Mitchell II Hall.

Plants will be displayed and sold. Look for winter-hardy types and hanging baskets. Anticipate being enticed by hundreds of plants—mammillarias, epiphyllums, haworthias, aloes, euphorbias,

sedums, crassulas and perhaps some stapelias to name a few. You will find the common and the not so common from the 2¼-inch pot up to the large specimen sizes.

Experts will be on hand to answer questions as well as help assemble dish gardens from your selections.

Succulent enthusiasts are welcome to enter their specimens in the show and may call Jim Sykes at 278-7524 for details.

There is no charge to attend the show and sale, except for the non-member gate admission fee of \$3 per adult. For more information call 575-2547 for a recorded message.

African Violet Show and Sale March 28-29

African violets are charming house plants that have undergone a phenomenal rise in popularity since the late 1930s. Enthusiastic local
continued on page 2

Volunteer Outdoor Gardeners Needed

Have you just moved into an apartment or patio home with little gardening space? Would you like to see DBG's gardens from a bug's-eye view and apply that experience to your own garden? If you love working outdoors with plants and if you would like to help beautify the Gardens, consider becoming a volunteer outdoor gardener.

On Wednesday, April 1, from 1 to 3 p.m., a meeting will be held at the Botanic Gardens' House. At this time DBG's Executive Director Merle Moore will talk about the Gardens and Assistant Director Andrew Pierce will briefly discuss its history; you will be given a tour of the grounds followed by refreshments and an opportunity to ask questions.

This year an emphasis will be placed on training for specific gardens. If you are interested in irises, waterlilies, roses or other plants, the training and practical experience you receive can be applied to your garden. No prior registration is necessary. Simply show up on April 1 at 909 York Street.

Great Getaways— The Pyrenees June 14 to July 5

Your last chance to join this fabulous tour is now! The deadline to register for an unforgettable excursion to Spain and France has been extended to the first two weeks of March.

Limited to 20, this 21-day tour will explore many of the little-known regions of the Pyrenees that lie on the border between France and Spain. The Pyrenees are a botanist's dream and this year they will be exceptionally beautiful following Europe's unusually cold, snowy winter.

Both guides, Patricia Pachuta of Denver Botanic Gardens and Dr. Allan Taylor of the Department of Linguistics at the University of Colorado, will introduce you to the people, their history and the finest Spanish, French and Basque cuisines. Visits to the marvelous cities of Madrid, Barcelona and Carcassonne and small country communities help to illustrate the glory of this region. A visit to the principality of Andorra is even included.

For details of this tour contact Andrew Pierce at 575-3751, extension 18.

Churros are a typical Spanish pastry often dunked in steaming hot chocolate; by Pat Pachuta

Plant Record Volunteers Needed

Volunteers help gather data for the Outdoor Grounds department's plant records (phenology studies). These volunteers work outside observing and recording bud break, leaf expansion and full bloom. This will require three to five hours of your time per week during the prime growing season.

Contact Gayle Weinstein or Julie Dulapa at 575-3751, extension 26, for additional information.

Seasonal Gardeners Wanted

Applications for seasonal gardeners are being accepted through the early part of March. This is a full-time position that may begin as early as March and last through the summer possibly extending into early fall. Some gardening experience, as well as an ability to work outside all day through the summer, is all that is required. Pay ranges upward from \$4.50 per hour depending on experience and ability. Call the Gardens at 575-3751 for an application.



African Violet Show

continued from page 1

growers will display and sell them at the Rocky Mountain Violet Council Spring Show and Sale "Silver Celebration" Saturday and Sunday, March 28 and 29, in John C. Mitchell II Hall. Council members will be available to answer questions and tempt novice growers with leaves and starter plants.

The Show and Sale hours are 1 to 4:30 p.m. on Saturday and 10 a.m. to 4:30 p.m. on Sunday. The public is invited and there will be no charge to attend, however, DBG's non-member gate admission fee will be in effect. Get together with other violet growers to learn why African violets are among the most popular house plants grown today.

New Members Mark Your Calendars

There will be an early evening reception for new members on Wednesday, March 11. Watch for a postcard with all the details.

Tributes

In memory of J. Gordon Bartley

Anne & Elaine LaTronica

In memory of Mrs. Cora Bass

Mrs. Kenneth W. Miller

In memory of Anne Broad

Nan Deter

Marilyn Fowler

Elizabeth Heacock

Dr. & Mrs. Robert Kosanke

In memory of Anita L. Carey

Mrs. W.D.P. Carey, Jr.

Mrs. D.C. Josephs

Robert C. McCormack

In memory of T. Aldrian Cross

Dr. & Mrs. Robert Kosanke

In memory of Joseph H. Dille

James W. Dille

In memory of Mrs. Lincoln Griese

Mr. & Mrs. Robert S. Appel

In memory of Ray Heacock

Elizabeth Heacock

In memory of Mrs. Fielder Hughes

Mrs. J. Clinton Bowman

In memory of Mrs. Helen

Johaningsmeir

Mr. & Mrs. Robert Knickrehm

In memory of Josephine Jonke

Mrs. Willie King

In memory of Robert S. McCollum

Mr. & Mrs. Lawrence A. Long

In memory of Mrs. Ann Queen Nelson

Lura & Henry Johaningsmeir

Mr. & Mrs. Robert Knickrehm

In memory of Mary Nowak

Patricia M. Lanoha

In memory of Anetta Shafer

Rhita S. Florey

In memory of Dr. Robert H. Tschudy

Dr. & Mrs. Robert Kosanke

In memory of Mrs. William (Grace)

Wierman

Mrs. J. Clinton Bowman, Jr.

Green Thumb News

Number 87-3 March 1987

Published monthly by the Denver Botanic Gardens Education department, 909 York Street, Denver, Colorado 80206, and edited by Patricia A. Pachuta and Carolyn Knepp. Subscription to this newsletter is a benefit of membership in the Botanic Gardens. For membership information, please write the Membership department at the above address or call 575-3751.

Deadlines for this newsletter are: Major news stories, feature material (including photographs or artwork), and short notes are all due not later than February 20 for April, March 20 for May and April 20 for June.

Please plan in advance and meet deadlines. Late material cannot be used. Stories must be typed, double-spaced, preferably on copy paper provided by the editor. Please call the Education department at 575-3751 for details.



Accredited by the
American Association
of Museums

Noted Tree Expert to Present "Tree-Mend-Us Denver"

The Denver City Forester's office has estimated that between 1962 and 1982 Denver lost 44% of its street and yard trees as a result of many environmental factors.

On Thursday, April 2, at 7:30 p.m., in DBG's John C. Mitchell II Hall, the Gardens and Denver Urban Forest will present Gary O. Robinette, nationally known landscape architect and author. He will present an illustrated program titled, "Tree-Mend-Us Denver," at an evening devoted to our trees. Mr. Robinette is especially interested in ways more trees can be added to our cities.

Mr. Robinette is the author of many books, most notably: *Plants, People, and Environmental Quality*, *How to Make Cities Liveable*, *Energy Efficient Site Design* and *Water Conservation in Landscape Design*. His research has included water conserving landscape design, energy conservation in managing urban parks and programmed instructional materials for use in professional education. Many of his books can be found in DBG's Helen Fowler Library.

Denver Urban Forest is joining with the Gardens to present this informative evening. They are a new citizens' organization formed of many civic and neighborhood groups and government agencies to address the problems associated with the loss of our urban trees. They believe that "the urban forest can best be maintained and expanded by alerting citizens to the problem, by advising them of the solutions and encouraging them to take action."

Mr. Robinette's presentation will show ways of alleviating the loss of trees and representatives from Denver Urban Forest, Denver Botanic Gardens, the Department of Parks and Recreation, the City Forester's Office, C.S.U. Extension Office and other specialists will be present to answer questions and distribute educational materials.

The public is invited to attend this illustrated program. A \$2 lecture fee for both members and non-members will be charged. No advance registration is necessary; this fee will be accepted at the door. We anticipate this will be a "Tree-Mend-Us" evening.



"Reflections" by Frank Swanson, a 1983 donation by Terry and David Touff.

White House Arrangements: Flowers and Tidbits—Spring Flower Show April 4 and 5

Find out the floral likes and dislikes of the presidents and their first ladies. What do you do when a prince visits and no flowers are planted along the walk? Learn how to create your own arrangements for when the president visits you or for when you throw a smashing party.

Former Chief Floral Director for the White House, Dorothy Temple will talk about her years with Presidents Nixon, Ford, Carter and Reagan during the Spring Flower Show in John C. Mitchell II Hall. Among her observations is the renaissance of the use of fresh flowers in American homes and restaurants. She attributes this change to the foreign influence of world travel and the availability of exotic flowers from international markets.

Mrs. Temple, accredited by the American Institute of Floral Designers, will speak and give demonstrations on Saturday and Sunday, April 4 and 5, from 1 to 3 p.m. There is no charge for these programs other than the regular non-member gate admission fee.

Saturday evening a special cocktail reception will be given in her honor from 5 to 7 p.m. A \$10 fee covers champagne, hors d'oeuvres, a brief talk (15 to 20 minutes) by Mrs. Temple and a chance to observe examples of her White House arrangements. There will be a cash bar. For party reservations or more information, call Evelyn at United Floral Industry, 433-6423, or send your \$10 check (made out to UFI) to her at 2785 N. Speer Boulevard, Denver, CO, 80211.

From Your 1987 Plant and Used Book Sale Chairman: We Need Your Help and Your Books

Volunteers to this year's annual Plant and Used Book Sale have a new educational opportunity. For your participation this year you can learn about the plant materials that are sold—knowledge you can apply to your own gardening interests.



Jeanne Ruggles

On Saturday morning, April 25, for approximately two hours, you can participate in a training program. An overview of the sale and the plants available will be presented followed by a tour of the Gardens that will describe the sale's set-up.

Please let us know if you are interested or would like more information by filling out the adjacent coupon. You can call me at 321-1223 or leave your name with DBG's Carol Knepp at 575-3751, extension 20.

Also, as a reminder, the Used Book Sale provides an increasingly important source of revenue to the Gardens. Librarian Solange Gignac is accepting your book donations so that she can recycle them at the sale. Call her at 575-3751, extension 32, or bring them by the library on your next visit.

Jeanne Ruggles (321-1223)
Chairman
1987 Plant and Used Book Sale

Development Office—Plant Sale
Denver Botanic Gardens
909 York Street
Denver, Colorado 80206

1987 Plant and Used Book Sale Volunteer Sign-Up

Name _____
Address _____
City _____ State _____ Zip _____
Daytime Phone _____

Education Department

Horticultural Therapy Educational Program

Horticultural therapy is an adjunctive therapy using plants and plant-related activities to modify or facilitate change in people. Horticulture has applications in the treatment of cognitive, emotional and physical limiting conditions and disorders. It is used in preventive and health maintenance programming.

The following courses will introduce an ongoing professional curriculum in horticultural therapy. They are designed to provide plant-related activities training to human service professionals, volunteers and other interested individuals and will be incorporated into a horticultural therapy certificate program currently under development. The application of specific horticultural skills to client treatment programming is an integral element of each class.

For additional information about the horticultural therapy program at DBG's Morrison Horticultural Demonstration Center (located at 2320 East 11th Avenue, Denver) and its educational programs, please contact Horticultural Therapist Judy Carrier at 575-3751, extension 42.

Designing a Summer Horticultural Therapy Program

(one session)
Tuesday, March 31
9:30 a.m. to 12:30 p.m.
Morrison Center

Learn to plan and implement a summer horticultural program that will complement your agency's services. Activity plans, scheduling techniques, cooperative programming and planting and harvesting for winter activities will be covered.

Instructor: Judy Carrier

Fee: \$12 members/\$13.50 non-members

Limit: 25

Horticultural Techniques for Therapy Programs

Tuesdays, March 10, 17, April 7, 21
9:30 to 11:30 a.m.
Morrison Center

A well-rounded skills base in horticulture is the foundation of a sound horticultural therapy program. This course offers the opportunity to become more knowledgeable and self-assured with a variety of plant materials and gardening activities.

Tuesday, March 10
Vegetable Gardening: Planning, Designing, Soil Preparation

Tuesday, March 17
Vegetable Gardening: Warm and Cool Season Plants, High Yield Techniques, Pests

Tuesday, April 7
Flower Gardening: Designing and Planting, Annuals and Perennials

Tuesday, April 21
Flower Gardens: Plants for Cutting and Drying

Instructor: Judy Carrier

Fee: Each program is \$9 for members/\$10 for non-members. If you are choosing individual programs, please indicate the dates on the registration form. Fees include materials.

Designing Adaptive Gardens

(three sessions)
9:30 to 11:30 a.m.
Thursdays, March 12, 19, 26
Morrison Center

This course is designed to assist human service providers, persons with physical disabilities and/or their families plan an accessible gardening area for their agency or home.

An illustrated lecture will show a variety of adaptive garden designs using a wide range of construction materials. Plants and soils suitable for raised beds and planters will be discussed.

With the instructor's guidance, students will design their own accessible garden plan including planters and raised beds to fit their unique needs and abilities.

Construction materials and basic carpentry and masonry techniques will be covered. Students will participate in a hands-on construction project during the course.

Instructors: DBG Horticultural Therapist Judy Carrier and Carpenter Ron Albright. A cabinetry specialist, Mr. Albright has been a professional carpenter for 22 years.

Fee: \$30 members/\$32.50 non-members (includes a \$6 materials fee)

Limit: 15

Colorado Conifers

(one session)

Saturday, March 14

9 a.m. to noon

Morrison Center at 2320 East 11th Avenue, Denver

Learn the identification and general ecology of Colorado's conifers. How many needles make up a bundle in a pinyon or a bristlecone pine?

Find out about elevation, distribution, and soil and slope needs for each of our evergreen tree species as well as interesting facts about the wildlife species associated with them.

Most instruction is in the classroom but wear warm clothing for a walk on the outside grounds.

Instructor: Tina Jones is a wildlife instructor who teaches at the University of Colorado, the Denver

Museum of Natural History and DBG. She is an active birder with much field experience.

Fee: \$12 members/\$13 non-members

Ground Covers and Vines for Your Garden

(two sessions)

Wednesday, March 11

7:15 to 9:15 p.m.

Sunday, March 15 (field trip)

2 to 5 p.m.

Classroom A on March 11

This class will focus on over 30 evergreen and deciduous ground covers and vines for Denver area gardens. The distinguishing and ornamental characteristics will be shown through the use of slides as well as a field trip.

A discussion of their natural history, hardiness and culture will also be included.

Instructor: Jeffrey Frank studied landscape architecture at Pennsylvania State University and the University of Virginia and is presently employed as a landscape architect in Denver.

Fee: \$13 members/\$14.25 non-members

Basic Pruning Principles

Saturday, March 7 (one session)

1:30 to 3:30 p.m. Classroom C

Properly pruned plants are healthier as well as more aesthetically pleasing. In this introductory class, students will learn the basic principles, plant responses and timing involved in pruning deciduous and evergreen plants.

Instructors: DBG Botanist Horticulturist Gayle Weinstein and Horticultural Assistant Julie Dulapa.

Fee: \$8 members/\$9 non-members

Pruning Workshop

Saturday, March 14 (one session)

1:30 to 3:30 p.m. Classroom C

This is a hands-on class for those who have taken Basic Pruning Principles on March 7. In it, students will learn to prune using plants on the Gardens' grounds. Participation and good supervision are certain to result in well-shaped specimens in your own yard.

Instructors: DBG Botanist Horticulturist Gayle Weinstein and Horticultural Assistant Julie Dulapa.

Fee: \$8 members/\$9 non-members

Rock Garden Construction

(two sessions)

Wednesdays, March 18, 25

1 to 3 p.m. Classroom B

Rocks form a conspicuous element in the Western landscape, from the breaks on the plains, to the cliffs and pinnacles of the mountain peaks. Many gardeners would like to incorporate rocks into their home landscape, but wonder how to do it effectively.

In the first class, students will be shown examples of the appropriate use of rocks in a variety of home gardens and will discuss some of the dos and don'ts of rock garden construction. A list of suppliers and samples of their wares will be provided.

In the second session, participants will have two opportunities to build miniature rock gardens and have their work critiqued constructively.

Instructor: Panayoti Kelaidis is curator of the award-winning Rock Alpine Garden at DBG and is a popular and enthusiastic teacher.

Fee: \$16 members/\$17.50 non-members

Limit: 18



CLASSES

Spring
1987
Denver Botanic Gardens



Advanced Grass Identification

(four sessions) 9 a.m. to noon
Saturdays, March 14, 21, 28,
April 4

DBG's Kathryn Kalmbach
Herbarium (located upstairs
above the library)

Over 300 species of grasses are found in Colorado, dominating the vegetation in many areas. In spite of the abundance and importance of this group, most amateur botanists ignore grasses because they are considered too difficult.

Students should already be familiar with grass morphology and have some experience in grass identification using botanical keys. Numerous native and naturalized Colorado grasses will be identified.

Instructor: Janet L. Wingate, M.S. and Ph.D. in botany from the University of Oklahoma, is currently on the DBG staff working in the Kathryn Kalmbach Herbarium. She is an avid field botanist with much teaching experience.

Fee: \$48 members/\$53 non-members

Limit: 8

Small Flowering Trees for Denver

(three sessions including a field trip)

Wednesday, March 18, 25 from
7:15 to 9:15 p.m. Classroom C
and Sunday, March 29
from 2 to 5 p.m.

This class will familiarize students with the ornamental and identifying characteristics of approximately 40 small hardy trees that are hardy to the Denver area. Through the use of slides students will view each of the species during all four seasons and a field trip will provide a closer look.

Instructor: Jeffrey Frank

Fee: \$21 members/\$23 non-members

Tree Walk at Cheesman Park, Denver

Saturday, March 28
10 a.m. to noon

Cheesman Park consists of 80 acres of trees and lawns and lies immediately west of Denver Botanic Gardens. It was part of the original 160 acres purchased by the city of Denver in 1872 from the United States Government. Under the name of Mount Prospect or Prospect Hill, the area was used extensively for burials in the early days of Denver.

Join us on a walk through this historic park to see the many kinds of trees, both deciduous and evergreen, native and introduced, that have been planted here since 1907.

Instructor: Dr. William G. Gambill, Jr., Director Emeritus and taxonomist at DBG, is a former botany and biology professor.

Meet: at 10 a.m. in the main DBG parking lot.

Fee: \$4.50 members/\$5 non-members

Limit: 18

Deciduous Flowering Shrubs

(six sessions including a field trip)

Mondays, April 6, 13, 20, 27, May 4
from 7 to 9 p.m.

and

Field Trip on Saturday, May 2
from 9 a.m. to noon

Morrison Center at 2320 East 11th
Avenue, Denver

The emphasis of this course will be on identifying and examining the landscape value of over 50 species of deciduous flowering shrubs that are hardy in the Denver area.

Through the use of slides, students will view each species during all four seasons. A Saturday morning field trip is scheduled to provide a closer look at some of the plants discussed in class.

Instructor: Jeffrey Frank studied landscape architecture at Pennsylvania State University and the University of Virginia and is presently employed as a landscape architect in Denver.

Fee: \$45 members/\$48 non-members

Mushroom Identification

Wednesdays, April 8, 15, 22
(three sessions)

7 to 9:30 p.m. Classroom C

Although this introductory course in mushroom identification is for beginners, it will also provide a firm base for those who may wish to pursue the subject in more depth in the future.

Three slide lecture sessions will cover structure, growth, habitat and seasonality of mushrooms as well as information on toxicity and edibility. The use of field guides and keys will be demonstrated and recommendations will be given on those most useful in our area.

The main emphasis will be spring-fruiting mushrooms of the city and lower elevations. Collecting, cleaning and cooking hints will be provided.

Handouts will be given but students should be prepared to take additional notes. Participants will learn to positively identify more than 20 common edible, non-edible and poisonous species. An optional field trip will be scheduled according to local mushroom fruiting times.

Instructor: Marilyn Shaw lectures and teaches extensively and has been active in the Colorado Mycological Society for 13 years. She has studied with Alexander Smith, Harry Thiers and Orson Miller, Jr. as well as many other prominent mycologists. Ms. Shaw is a consultant in mushroom identification for DBG and Rocky Mountain Poison Center.

Fee: \$30 members/\$33 non-members

Gardening For Results

Tuesdays from 7 to 9 p.m.

Morrison Center at 2320 East 11th
Avenue. Please indicate your
program titles if you are not
attending the entire series.

Professional horticulturists will present the background and techniques needed to achieve bountiful and beautiful gardens in this series of programs. Attend them all or choose those that suit your particular needs.

Tuesday, April 7

Grow Your Own Bedding Plants

Learn how to choose appropriate varieties, containers and soil as well as the proper techniques of timing, seeding and transplanting. Specific light and temperature requirements for seedlings will also be covered.

Tuesday, April 14

The Small Space Vegetable Garden

Methods such as wide row spacing, successive planting and intercropping will help you grow more produce in your city garden than you ever thought was possible. Learn sources of appropriate varieties.

Tuesday, April 21

Organic Approaches to Vegetable Gardening

Learn non-chemical approaches to soil improvement and fertilizing as well as which preventive measures will help to avoid pests in the garden. Suitable vegetable varieties will also be discussed.

Tuesday, April 28

The Culinary Herbs

This class is an introduction to the culture and uses of the cooking herbs. Plan an herb garden or use herbs to accent your annual beds or perennial borders.

Instructors: Jim Borland, Lynn Thompson, Pat Pachuta and Gayle Weinstein are all horticulturists on the DBG staff and John Brett is the former coordinator of our Community Gardening Program.

Fee: Each program is \$8



1987
Calendar of Events
Denver Botanic Gardens

January
February

1-16
16

BLOSSOMS OF LIGHT: Simpich Doll Collection
National Western Stock Show—Cattlemen's Wives Luncheon

11
23-Mar. 13 Annual Membership Dinner Meeting
Prudential Plaza: Spring Gardens at the Plaza

March

14-15
22
28-29

Colorado Cactus and Succulent Society Show
Rose Symposium
Rocky Mountain African Violet Council & Show

April

2
4-5

Denver Urban Forest: Tree-Mendous Denver
Spring Flower Show—Floral Arrangements in
the White House
Ikebana International Show

25-26

May

8-9
30-31

38th Annual Plant & Book Sale
American Iris Society Show & Sale

June

5-6
7

Alpines Around the World Symposium
A Taste of Australia
Rocky Mountain Bonsai Show

13-14
20

Beginning of Summer Evening Hours
Gesneriad Gloxinia Show and Sale
DBG/KCFR Garden Concert

20-21
25-26

Scarecrow Contest
Young Audiences Concert

27
30

July

Iris Society Rhizome Sale
Colorado Watercolor Society Show
Garden Concert

1987
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Rocky Mountain Bonsai Show
Beginning of Summer Evening Hours
Gesneriad Gloxinia Show and Sale
DBG/KCFR Garden Concert
DBG/KCFR Garden Concert
Seacrow Contest
Young Audiences Concert

July

4
4-5
9-10
14
19
23-24
28
30-Aug. 2

Iris Society Rhizome Sale
Colorado Watercolor Society Show
DBG/KCFR Garden Concert
Young Audiences Concert
Daylily Show & Sale
DBG/KCFR Garden Concert
Young Audiences Concert
Denver Artists Guild Show & Sale

August

6-9
6-7
12-16
15-16
20-21
19-23

Glass Artists Stained Glass Show
DBG/KCFR Garden Concert
Vintage Car Display
Mushroom Fair
DBG/KCFR Garden Concert
International Water Lily Conference

September

3-4
17

19-Dec. 6

DBG/KCFR Garden Concert
Bicentennial of American Constitution
Beginning of Biblical Plants: Reign of Ramses II

October

17
24 or 31

Rocky Mountain African Violet Council Sale
Oktoberfest
Reign of Ramses II

November

6, 7, 8
20-21

Botanical Treasures II—Print Show & Sale
Annual Holiday Sale
Reign of Ramses II

December

11
12-Jan. 3

Heralding the Season
Blossoms of Light and High Tea

Extended evening hours to dusk, every Saturday, Sunday, Wednesday
beginning June 20 through August 30, 1987.

Denver Botanic Gardens • 1005 York Street
Membership and Volunteer Information 575-3751, 575-2547



Designing the Small Home Landscape

(two sessions)

Saturdays, April 11, 25

8:30 a.m. to 12:30 p.m.

Classroom B

In this course students will learn how to plan a small site landscape for a new or existing home. Appropriate small landscapes include small city or suburban lots, patio homes and townhouses and courtyards.

Four hours of instruction by slide lecture and demonstration will be interspersed with hours of discussions, addressing student case studies and tours of the DBG grounds. Topics to be covered are design procedures and principles, Front Range ecology and "xeriscapes," drainage and earthforms, paving structures and planting design from trees through vines, ground covers and perennials. Printed materials and local resources are included.

Prior to the beginning of class, registrants will receive directions for making site drawings and a list of landscape needs. In order to complete this pre-class assignment, students should register by April 1.

Instructor: Jan Caniglia, MLA, ASLA, has practiced landscape architecture for seven years in the areas of site design, environmental planning and community design. She has taught numerous classes on Colorado landscape design and historical landscapes.

Fee: \$35 members/\$38 non-members (includes \$3 for materials)

Limit: 15

Dig Right In

(one session)

Saturday, April 11

10 a.m. to noon

Morrison Center at 2320 East 11th Avenue, Denver

In this hands-on soil preparation workshop, students will learn to make the most of Colorado's heavy clay soils. Learn the pros and cons of organic and non-organic soil amendments as well as the importance of soil testing.

Because participants will go outside to try their hands at single and double digging, wear work clothes and practical shoes.

Instructor: Lynn Thompson is a horticulturist who coordinates DBG's Community Gardening Program. She has taught many topics pertaining to home vegetable gardening in Colorado.

Fee: \$8 members/\$9 non-members

Limit: 12

Botanical Illustration II

Tuesdays, March 31, April 7, 14, 21, 28, May 5

(six sessions)

7 to 9 p.m. Classroom B

This is a continuing flower drawing course for those who are not quite beginners. Spring flowers including tulips, daffodils, crocuses and flowering branches will be carefully observed, dissected and drawn in the classroom and records and measurements of spring unfolding at home will be taken.

There will be special emphasis on beginning to watercolor your drawings.

Instructor: Over seven years, Angela Overy has helped many DBG students discover a new interest and ability through her enthusiastic lectures and classes.

Fee: \$54 members/\$59 non-members (includes \$6 for materials)

Limit: 20

Beginning Botanical Illustration—Spring Unfolds

Wednesdays, April 1, 8, 15, 22, 29, May 6

9:30 to 11:30 a.m. Classroom B

This introductory course will stress accurate drawing of flowers, roots, stems and leaves. Fresh spring flowers from the garden, including tulips and daffodils, will be used and dissected when required to draw individual plant parts.

No previous drawing experience is necessary and students will work with pencils, colored pencils and will finally progress to watercolors. This course is certain to increase your observation skills and heighten your enjoyment of spring.

Instructor: Angela Overy

Fee: \$54 members/\$59 non-members (includes \$6 for materials)

Limit: 15

The Shady Garden

(two sessions)

Thursdays, April 16, 23

7 to 9 p.m. Classroom C

Almost every garden includes a shady (and often neglected) spot that challenges the home gardener. Learn landscaping solutions and how to grow appropriate plants in this two-part course. Information on colorful annuals (begonias, impatiens and browallia) and perennials (columbine, astilbe and dicentra) as well as interesting foliage (ferns) will be provided.

Instructor: Andrew Pierce

Fee: \$16 members/\$17.50 non-members

Perennial Pleasures

(five sessions)

Tuesdays, April 7, 14, 21, 28

May 5

7 to 9 p.m. DBG House

With proper planning and planting, perennials can enhance any garden with long term beauty and reduced maintenance. Discover the pleasures of perennial gardening in this five-session course that covers garden design, soil preparation and cultivation as well as a multitude of suggested plants.

Instructor: Andrew Pierce is a horticulturist and is assistant director of DBG.

Fee: \$40 members/\$44 non-members

The Aquatic Garden: Plants

(one session)

Saturday, April 11

1 to 4 p.m. Classroom C

Learn to create a splashy display garden in a whiskey barrel or a small backyard pool. Learn the selection, culture and sources of hardy and tropical waterlilies and bog plants, floating plants, lotus and the giant water platter lily, *Victoria* sp.

Additional subjects are propagation and overwintering techniques, dwarf waterlilies and algae control.

Instructor: Joseph V. Tomocik is a Gardener Florist II at Denver Botanic Gardens whose responsibilities include the Aquatic Plant Display.

Fee: \$12 members/\$13 non-members

The Aquatic Garden: Basic Pool Construction

(one session)

Saturday, April 18

1 to 4 p.m. Classroom C

Backyard gardeners and do-it-yourselfers will learn how to install their own pools, from start to finish. Included are proper site selection and design considerations as well as how to use membrane liners such as PVC (polyvinyl chloride) and Hypalon (chlorosulfonated polyethylene). Although the main emphasis will be on these materials, the pros and cons of concrete and urea resin will also be discussed.

Class members will participate in the completion of a demonstration pool on the DBG grounds by doing the actual shelf finishing work and installing the liner.



*Easter Basket
by Robin Taylor
Daugherty*

Instructor: An avid water gardener, John B. Mirgon is a board member of the Water Lily Society and the past president of the Colorado Water Garden Society.

Fee: \$12 members/\$13 non-members

Make Your Own Easter Basket

(one session)

Saturday, April 4

9 a.m. to 4 p.m. Classroom B

Start a family tradition by creating your own handmade Easter basket from natural reed. Wrap its handle and decorate it appropriately. Students will complete one basket in this all-day class.

No previous experience is necessary and participants should bring a sack lunch and pruning shears, sharp knife and an old towel to class.

Instructor: Robin Taylor Daugherty

Fee: \$30 members/\$33 non-members (includes \$10 for materials)

Limit: 12

Ukrainian Easter Eggs

Saturday, April 4

(one session) **1 to 4:30 p.m.**

DBG's Morrison Center at 2320 East 11th Avenue, Denver

Ukrainian Easter egg decorating, or *pysanky*, is a centuries-old technique of creating intricate and brilliantly colored patterns on eggs. The process is similar to that used in batik: designs are drawn with molten wax and are over-dyed.

Please bring a candle, rubber gloves and three or more uncooked, jumbo or extra large eggs to class; all other materials will be provided.

Instructor: Peggy Johnston studied art education at the University of Wyoming and has extensive teaching experience.

Fee: \$16 members/\$17.50 non-members (includes \$2 for materials)

Limit: 20

*Ukrainian
Easter Eggs by
Peggy Johnston*



Wheat Weaving Workshop: House Blessing

(one session) **Saturday, March 14**
1:30 to 3:30 p.m. Classroom B

Learn to make the traditional house blessing to adorn your door and greet guests. Prerequisite: attendance at any previous wheat weaving class. Please bring a pair of scissors to class.

Instructor: Maureen McGowan is a horticultural instructor and consultant who has taught various craft classes at the Chicago Botanic Gardens and DBG.

Fee: \$14 members/\$15 non-members (includes \$6 for materials)

Basketry Workshop: Cat's Head Basket

(one session)

Saturday, March 14

9 a.m. to 5 p.m. Classroom A

Learn to make a traditional 19th century Shaker basket originally designed to hold heavier vegetables. This simply woven style has a square bottom and a round top with a convex base.

No previous basketry experience is necessary. Please bring a towel, sharp knife, shears, awl, pinch-type clothespins and a sack lunch.

Instructor: Robin Taylor Daugherty

Fee: \$32 members/\$35 non-members (includes \$12 for materials)

Beginning Ikebana Lessons

(four sessions) **10 a.m. to noon**
Saturdays, March 28,

April 4, 11, 18

DBG's Morrison Center at 2320 East 11th Avenue

Ikebana is the Japanese art of flower arranging perfected through centuries of tradition. Often considered the epitome of elegant simplicity, it reflects the Japanese understanding of and deep respect for nature.

In this introductory course, students will view slides and gain a preliminary understanding of four schools of arranging: Ikenobo, Chiko, Ohara and Sogetsu. They will practice and take home beginning styles of light, airy arrangements using spring flowers such as irises and pussy willows.

Instructor: Joan Wooldridge is a certified teacher of Sogetsu with instruction in the schools of Ohara and Ikenobo. She recently returned from the Fifth World International Ikebana Convention in Kyoto where she served as the official delegate from the Denver chapter.

Fee: \$44 members/\$47 non-members (includes \$12 for flowers)

Materials such as containers and flower holders will be approximately \$27-40 and are available in the DBG Gift Shop.

Limit: 12



Denver Botanic Gardens
909 York Street
Denver, Colorado 80206

Fees for courses should be paid in advance by check or money order made out to Denver Botanic Gardens. Since the space is limited in many courses, registration should be mailed in promptly. Your registration will NOT be acknowledged. Your name will be placed on the class list the day your money is received. No enrollments for class by phone please. All courses given are subject to a minimum enrollment of ten students. For further information, please call 575-3751.

Registration Form for Classes and Field Trips

The enclosed check, in the amount of _____, is to cover the registration fees for the following classes:

Name and section of classes _____

Name _____

Address _____

City _____ State _____ Zip _____

Home Tel. No. _____ Business Tel. No. _____

Member of Denver Botanic Gardens? ☐ Yes ☐ No

L I B R A R Y L I N E S

Helen Fowler Library
Volume 10, No. 1
March 1987

Librarian:
Solange
Gignac

The Frampton Flora

Compiled by Richard Mabey.
Guild Publishing, London, 1985.
\$25.00. QK 306 F73 1985

For all of the people who were enamored by Edith Holden's *The Country Diary of an Edwardian Lady*, this book will inspire similar and perhaps even stronger feelings. It records most of a group of over 300 botanical watercolors of English countryside plants rendered between 1828 and 1851 by seven members of the Clifford family of Frampton Court in Gloucestershire, England. Four of the Clifford women were sisters, the remaining three, their aunts.

Although there was apparently no desire by any of the women to have their illustrations published, there is no lack of quality or botanical accuracy in any of them. In fact, the women tended to approach the discipline with a rather scientific intent not often found in the work of their contemporaries. An indication of this, botanical accuracy aside, is that each rendering is accompanied by not only the botanical name but also the plant's classification under the Linnean sexual system.

One is probably asking how the work compares with that of the "masters" of botanical illustration. My reply is that some of the Cliffords' watercolors are as powerful as Pierre-Joseph Redouté's work during his "Les Liliacées" period.

The graphics of this book are excellent. All of the works are reproduced in wonderful, lush, lifelike color, especially the greens. There is a minimum of text, but this is not to be taken as a shortcoming. At \$25 this book is an excellent value. I would cheerfully pay as much as \$40 for a reproduction of this caliber. *The Frampton Flora* is available in the Gardens' Gift Shop.

Carolyn Crawford

THE REVIEWERS

Carolyn
Crawford—
botanical
illustrator

Joan
Hinkemeyer—
library
volunteer

Gwen
Kelaidis—
gardener

Carol
Knepp—
DBG's
education
assistant and
amateur
photographer



FLOWER SHOW



DENNIS STOCK

Flower Show

By Dennis Stock. Rizzoli International Publications, Inc., New York, 1986. \$50.00. SB 407 S75 1986

Dennis Stock's book is not stagnant, it is vibrant. It leaps out of its slipcase and the cover springs open to reveal a display of breathtaking motion and spellbinding color.

Flowery writing is not my preferred style of prose, yet when I was first presented *Flower Show*, I simply sat lost in amazement except for brief returns to reality with exclamations of delight—or "look at this one." What Mr. Stock does with film, color and motion is a gift. He takes the reader to the plant and its gardens and he eloquently shares his feelings of joy. Each page compelled me to eagerly turn to the next. I could not believe what he had done—such work has yet to come from my camera.

Dennis Stock has been a photographer for 30 years and states that "After three decades of professional life, the balancing act between sophistication and naivete is my constant concern as I pursue fresh visual means to appreciating a subject." In his endeavors to uncover fresh visual means and new inspiration he visited the Metropolitan Museum in New York and an exhibit of Claude Monet's work. He found so much inspiration that several weeks later he was on a plane to Paris to visit the gardens of Giverny and the rest is history.

If inspiration for this book came from Monet's gardens—book me a flight!

As seductive as *Flower Show* is for gardeners, artists and designers, this book provides double pleasure for photographers. Following the 80 pages of startling color is a "Catalogue" of technical wealth. The

section contains black and white prints of each color photo with complete details as for location and subject name, and lens, camera, f-stop and shutter speed used. My only regret is that I can't carry this book in my pack for use as a technical guide.

Reading (actually looking at) this book will be overwhelming, the excitement may overcome you—but do it anyway.

Carolyn Knepp

The English Garden Room

By Alan Toogood. Salem House, Salem, New Hampshire, 1985. \$16.95. SB416 T66 1985

This attractive book about the resurgence of interest in conservatories starts with the history of greenhouses and conservatories beginning with 17th century England. For the modern conservatory enthusiast the book has a useful chapter that itemizes types of building materials, including a variety of optional accessories.

An extremely practical section, "Laying out the interior," helps plan the design of the interior of a new conservatory. This chapter covers a variety of considerations such as planting beds, the addition or absence of a pool, supports for climbing plants, heaters, lighting, furniture and statuary.

Half of the book is devoted to a comprehensive list of every possible type of plant known to grow in a conservatory, including directions for their care.

Countless colored photos make this a good browsing book as well as being practical with a British style.

Joan Hinkemeyer

The Spirit of Gardening: Reflections on the true joys of gardening

By Jeff Cox. Rodale Press, Emmaus, PA, 1986. \$16.95 SB455.3 C69 1986

This book has an attractive design, with large and very readable print and truly lovely black and white fluorographic illustrations by artist Frank Fretz. It's a lightweight volume easily perused as bedtime material or for sampling in distracting situations such as the doctor's office or when travelling.

Cox includes some interesting tidbits of information on plants, telling us that Lewis and Clark



survived part of their expedition by eating wild onions, that morel mushrooms grow on rotting apple wood, and relating bits of mythology concerning the naming of *Hesperis matronalis*, the dame's rocket. He dwells on the virtues of goldenseal and ginseng as healers and on black currant syrup and lemon bavarian as an "ultimate dessert." He tells us of some of the plants and plantings which he and his wife placed on their Pennsylvania property.

The main goal of these essays is not, however, to tell us about plants or gardening, but to give us messages about Cox's view of life in general. The book reveals more of the author's personality than seems necessary, from the stubborn impatience with which he cuts open melons each year before they're ripe, to his callous forgetfulness of a clump of Dutchman's breeches he dug from a roadside woods, to his smug prescription of sage tea for a "friend" whom he feels isn't making the right decisions in his life.

Gwen Kelaidis

Gardening Tips for March by the Drs. Green This Month—The Last of Winter

Mulch is a protective blanket that moderates soil temperatures. Although March marks the official beginning of spring, harsh winter weather is still with us. Leave the mulch on another month lest some plants emerge with soft, new growth only to be nipped back by a cold spell.

Roses in particular are subject to our warming temperatures. Retaining their cover keeps them from breaking dormancy too soon.

Late fall, winter and spring have predictably unpredictable weather and the heavy, wet snow that falls this time of year can be especially hard on our trees. Preventative pruning is an important measure to help preserve our urban forests.

For current information on proper pruning techniques, please request Colorado State University's Service in Action Fact Sheet Number 7.207 from your County Extension Agent. You might also consider attending one of the Education department's pruning classes.

Spring Vegetable Seeding

Q When can I plant my peas and spinach?

A March and April are ideal months for starting cool season vegetables. It is better to prepare the soil in the fall so that these seeds can be sown as soon as the ground can be worked.

Turf Seeding

Q Is it okay to seed turf now?

A Late summer/early fall is the ideal time to sow Kentucky bluegrass or other cool season grasses. According to Dr. Jack Butler, turf specialist at CSU, March is typically too early as temperatures are too cold for the seed to germinate.

Dr. Butler has these three tips for seeding a lawn: Cover the seed, use a starter fertilizer and use varieties adapted to Colorado conditions.

Coffee Tree

Q I visited your Conservatory and the coffee tree was full of fragrant, white flowers. Why doesn't mine bloom at home?

A Coffee (*Coffea arabica*) is an under-story tree from Ethiopia. Ideal growing conditions are well-drained soils; steady, adequate moisture; regular fertilizing from spring through summer; high humidity; and good, indirect light.

Only when the plants are a mature



three to four years old do they flower and bear fruit. Flower buds initiate when grown somewhat on the dry side and then break dormancy with an increase of moisture.

Air Layering

Q My dieffenbachia has grown tall and leggy and the lower leaves have all fallen off. Is this the right time of year to try air layering?

A Air layering is a propagating technique often used to restart or root larger, sometimes woodier plants. In it, the stem is wounded and

then surrounded with a handful of moist medium, such as sphagnum moss, until new roots form. The new plant is then severed and potted up.

Spring's increase in day length and light intensity make this an ideal time to air layer. If requested, the Drs. Green will send you a detailed, illustrated leaflet on the subject.

Source for Lilies

Q I would like to grow some of the unusual lilies featured on your Lily Path. Can you suggest a nursery that specializes in these bulbs?

A Because there are many good sources for specialty plants, those interested in purchasing lilies or other unusual plants should contact our librarian, Solange Gignac, for catalog names and addresses.

Hedges

Q Please recommend a hedge for a dry, sunny spot.

A For an evergreen hedge, there are many types of columnar junipers that will perform well. But, if a deciduous hedge is required, consider the New Mexican privet, *Forestiera neomexicana*. This is a very drought-tolerant native plant that can be grown like a privet but with less moisture. If it becomes too dry, it will begin to defoliate letting you know that a good soaking is needed.



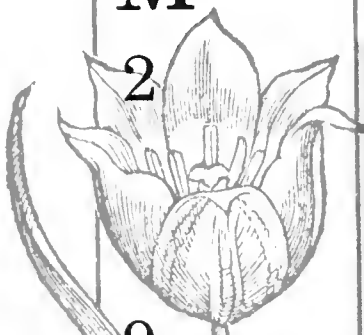

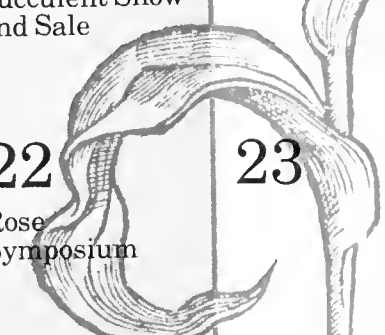
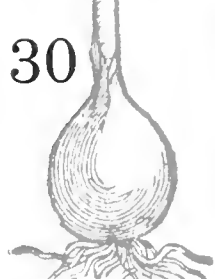
The Drs. Green welcome your comments and questions for possible inclusion in this column. Please contact them by writing: Drs. Green, Denver Botanic Gardens, 909 York Street, Denver, Colorado 80206.

MAR

Regular Meetings of Plant Societies

A number of plant and horticultural groups meet fairly regularly at the Denver Botanic Gardens. Here is a listing of those groups and a general indication of when they usually meet. For more specific meeting times and locations as well as for information on how to contact a representative of the group, please call the Botanic Gardens switchboard during business hours at 575-3751.

African Violet Society, 4th Thurs. of 7 months; Bonsai Society, 1st & 3rd Tues; Cactus & Succulent Society, 2nd Tues.; Civic Garden Club, 1st Fri.; Colorado Native Plant Society, 4th Wed.; Gloxinia Gesneriad Growers, 1st Sat.; Hemerocallis Society, 3rd Sun. of 4 months; Ikebana International, 4th Fri.; Iris Society, spring & fall dates; Men's Garden Club, 4th Thurs.; Mycological Society, 2nd Mon.; Orchid Society, 1st Tues.; Rock Garden Society, 3rd Wed.; Rose Society, 2nd Thurs.; Ultra Violet Club, 4th Mon.; Water Garden Society, 2nd Sun. of 5 months

A	L	E	N	D	A	R
S	M	T	W	T	F	S
1	2	3	4	5	6	7
		Flower Gardening Basics Choice Plants for Colorado Microclimates				Basic Pruning Principles
8	9	10	11	12	13	14
		Horticultural Techniques for Therapy Programs	Ground Covers and Vines, New Members' Reception	Designing Adaptive Gardens		Cactus and Succulent Show and Sale, Advanced Grass ID, Pruning, Conifers
15	16	17	18	19	20	21
Cactus and Succulent Show and Sale		Horticultural Techniques for Therapy Programs	Small Flowering Trees, Rock Garden Construction			
22	23	24	25	26	27	28
Rose Symposium				Beginning Bonsai		Beginning Ikebana, Tree Walk at Cheesman Park
29	30	31	Coming Next Month			
African Violet Council Show and Sale		Designing a Summer Hort. Therapy Program, Bot. Illustration II	April 1 Beginning Botanical Illustration	April 2 "Tree-Mend-Us Denver"	April 4 Make Your Own Easter Basket	April 4-5 Spring Flower Show
April 7 Hort. Techniques, Grow Bedding Plants, Perennials	April 11 The Aquatic Garden, Dig Right In, Ikebana, Small Home Landscape	April 14 The Small Space Vegetable Garden April 16 Container Gardening	April 18 The Aquatic Garden: Basic Pool Construction	April 25 Intensive Vegetable Gardening Workshop	April 25-26 Ikebana International Show	April 28 The Culinary Herbs

Denver Botanic Gardens, Inc.

909 York Street
Denver, Colorado 80206
303-575-3751

March 1987

TIME VALUE

Address correction requested



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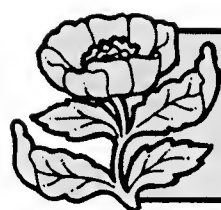


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"Flower Power" Pre-Sale Page 5

Plant and Used Book Sale Just Around the Corner

By now you should have planted May 8 and 9 on your calendar as the 38th annual Plant and Used Book Sale. No matter what you want for your garden or interior, you're likely to find it at DBG.

Like last year, the sale will be on our entire 20-acre garden site. Music, the stilt-walker, food carts, banners and canopies will enliven the thousands upon thousands of plants for sale.

Highlights of the 1987 sale: Two check-out points, one at the north entrance (Gaylord Street) and the other at the south entrance (DBG House parking lot), should ease congestion. Much like a supermarket check-out, there will also be express lanes to get you through as quickly as possible.

There will be the usual wide variety of herbs, along with the famous herb *continued on page 3*

Report from the Director

Denver Botanic Gardens is a "living museum" that exists for the pleasure and educational opportunity of its members, visitors and the various publics served by its programs. Evidence that the Gardens meets the rigorous standards of quality established by The American Association of Museums for major museums across the United States can be found in Denver Botanic Gardens' AAM accreditation, in 1984, one of only ten Gardens at that time to *continued on page 2*



Inside:

Great Getaways page 4

Classes for Adults page 7

DBG Plant Propagator Jim Borland at the 1986 Plant and Used Book Sale

continued from page 1
be so honored.

Like other museums and botanical gardens around the country, Denver Botanic Gardens is facing unprecedented financial challenges as we attempt to provide the programs and services expected by those of you who support us through your annual membership fees and gifts as well as from those who pay an admission fee to visit the Gardens. When the Trustees of the newly formed Denver Botanic Gardens Foundation sat down with officials from the City and County of Denver in 1951 to negotiate an agreement that would create the Gardens, it was presumed that the City would provide the funds necessary to operate the Gardens as it was developed. Regrettably, this has not been the case. Over the years reductions in the City's level of support have meant the loss of City staff, a dramatic increase in the number of Foundation paid staff and increased pressure on the Foundation to contribute operating funds for such basic expenses as plant materials, tools, fertilizer, etc.

To put this in a perspective for you let me give just two examples of the kinds of problems we face with our 1987 City budget:

1. In 1986 the City reduced its direct appropriation to the Gardens by three percent from the 1985 amount. In 1987 an additional three percent reduction was imposed on the Gardens.

2. In 1987 the City's direct appropriation to the Gardens is \$718,200. The amount of salaries and benefits paid to city employees working at the Gardens is \$905,595.

In other words, the direct appropriation from the City to operate the Gardens falls \$187,395 SHORT of paying even the salaries and benefits of the City staff who work here! This shortfall plus additional monies needed to keep vehicles in repair, purchase office supplies, etc., must come from gate admission fees and income derived from renting our facilities to other organizations.

While the Foundation contributed over \$720,000 in 1984, \$645,000 in 1985 and \$756,000 in 1986 to maintain a high quality of operation and programming at the Gardens, this has become increasingly more difficult given the current economic condition of metropolitan Denver and the State of Colorado. Low interest rates have seriously reduced income from the Foundation's investments further exacerbating the problem. To balance our 1987 operating budget

certain painful but necessary steps have been taken to bring projected expenses into line with anticipated income.

Both seasonal and permanent, full-time staff positions have been reduced in our 1987 budget. The effects of these staff reductions will be seen in the planting and maintenance of our 22 acres of outside display beds and gardens, in a reduction from four to two *Green Thumb* magazines being published in 1987 and in reduced hours of operation for the Helen Fowler Library, including closing the library on Sunday. Our very successful and highly rated College Internship Program in applied horticulture will see a reduction from ten interns to only four in 1987. We have made

every effort to minimize the outcome of these budget balancing measures on you, our members. We have also had to carefully consider the consequences of these measures on those visitors who will be required to pay an admission fee to the Gardens and who expect to receive value for that payment.

The most difficult aspects of budget planning are dealing with factors that are either unpredictable (e.g. the City's level of support from one year to the next) or that fail to meet anticipated projections (e.g. income from invested funds reduced by lower than anticipated interest rates). There is, however, a means of minimizing these factors and reducing the frustrating and often demoralizing effects that necessarily result when economic

continued on page 6



Tributes

In honor of the 50th Anniversary of Dr. & Mrs. Rodney Jones

Dick & Pinky Eber

In memory of Gladys Bode

Allyne E. Lawless

In memory of Anita L. Carey

Mr. & Mrs. William B. Harvey

Dr. & Mrs. William C. Jackson, Jr.

In memory of A. J. Coppola

Mr. & Mrs. Don Meyerson

In memory of Joseph Dille

Allyne E. Lawless

In memory of Lucian M. Long

Kenneth G. Christianssen

Dr. William G. Gambill, Jr.

John E. Gorsuch

Mr. & Mrs. Lawrence A. Long

In memory of Frederic M. McIntosh

Mary Lou and Arthur Kidder

In memory of Elizabeth Moore

Cherry Hills Heights Garden Club

In memory of Ethel Raleigh

Allyne E. Lawless

In memory of Charles W. Sitler, Jr.

Mrs. F. V. Altvater

In memory of Kim Sterne

Mr. & Mrs. John M. White

Green Thumb News

Number 87-4 April 1987

Published monthly by the Denver Botanic Gardens Education department, 909 York Street, Denver, Colorado 80206, and edited by Patricia A. Pachuta and Carolyn Knepp. Subscription to this newsletter is a benefit of membership in the Botanic Gardens. For membership information, please write the Membership department at the above address or call 575-3751.

Deadlines for this newsletter are: Major news stories, feature material (including photographs or artwork), and short notes are all due not later than March 20 for May, April 20 for June and May 20 for July.

Please plan in advance and meet deadlines. Late material cannot be used. Stories must be typed, double-spaced, preferably on copy paper provided by the editor. Please call the Education department at 575-3751 for details.



Accredited by the
American Association
of Museums

Colorado Water Garden Society to Meet April 12

The Colorado Water Garden Society will hold its first meeting of the 1987 season on Sunday, April 12 at 2 p.m. The program is open to anyone interested in water gardening and will be held in the Botanic Gardens House at 909 York Street.

Mr. Paul Swenby, Society member and award winning landscape architect, will speak on Japanese gardens. Mr. Swenby studied this form of gardening in Japan and is well qualified to talk about its philosophy and its application to the backyard gardens of the Denver area.

Details about programs or the Society may be obtained from its secretary, Anne Emmet, at 694-3653. Membership chairperson and vice-president, Mary Mirgon, may be reached at 922-9559 after 10 a.m.

Plant Sale

continued from page 1
vinegar made by the Guild and culinary herb charts for sale.

Forced lilies will be in bloom — hardy Asiatics from the Asian mainland and the mountains of Europe in a full spectrum of color (with the exception of blue). They are ideally suited to our climate, disease resistant and generally bloom in June or July. These lilies will make wonderful Mother's Day gifts and would be perfect in any perennial border.

The Patio area will offer unique containers and hanging baskets as well as lilies-of-the-valley.

"Designer" vegetables are IN this year. Outdo your neighbors with miniature tomato bushes, chocolate peppers, Tom Thumb lettuce or Mexican tomatillos. You'll also find the traditional salad items.

The rock alpine plants are considered a specialty of Denver Botanic Gardens because of our extensive Rock Alpine Garden and our proximity to the mountains. Thousands of these little treasures will be available for purchase.

The Perennial section will feature over 200 varieties to suit sun, shade, moist and dry conditions. Of special interest are the varieties of iris — suitable for both full sun or low light and in bearded, Siberian and Japanese varieties.

Other specialty items include bonsai, roses, cacti and houseplants — including some of the more unusual species from DBG's own greenhouses.

For more information on the Sale, call Jeanne Ruggles, 321-1223.



DBG Executive Director Merle Moore accepts a check from Mrs. L. Bernadine Hawkins and Mr. Michael L. Freed of the Japan Society of Colorado. This tribute was in honor of Minoru Yasui.

Plant Sale Volunteer Training

Just a reminder that the volunteer training program for Plant Sale personnel is scheduled for Saturday, April 25.

Refreshments will be served from 9 to 9:15 a.m. At 9:15 the training program begins, with a tour of the plant sale sites, highlights of past plant sales from former chairmen and other individuals involved and a review of the types of plants to be sold.

Bring a sack lunch if you would like

to stay and enjoy the Gardens in the afternoon. For more information, call Jeanne Ruggles, 1987 Plant and Used Book Sale Chairman, 321-1223. If you are interested in helping please complete the adjacent coupon and mail it to the Gardens.

Development Office — Plant Sale
Denver Botanic Gardens
909 York Street
Denver, Colorado 80206



1987 Plant and Used Book Sale Volunteer Sign-Up

Name _____

Address _____

City _____ State _____ Zip _____

Daytime Phone _____

"The Greening of Denver," a joint benefit for DBG and Historic Denver, Inc., was a resounding success. Pictured are (from left to right): W. Scott Moore; Mrs. John Fleming Kelly, former president of the Garden Club of Denver; Ed Connors, president of the DBG Board of Trustees; and DBG Trustee Barbara Rumsey.



Great Getaways

The tour schedule remains with two major tours a year, plus the flexibility of adding short, inexpensive trips as they are appropriate.

June 14-July 5, 1987: Wildflowers of the Pyrenees. This is filling up fast. Pat Pachuta, director of education and co-leader of the tour, is practicing her Spanish for ordering exotic menu items. All you rock alpinists, lovers of food, spas and history, let us hear from you. All-inclusive cost is \$4,058 for 22 days. Call Andrew Pierce, assistant director, at 575-3751, to sign on.

Late September or early October, 1987: Gardens of Paradise—Hawaii and Kauai. This mini-trip of eight days to the Pacific garden spots of our own United States will be approximately \$1,000 per person with all hotels, transportation and sight-seeing; free time is built in for relaxing or exploring on your own. Send deposit of \$100 to Andrew Pierce, 909 York Street, Denver, CO 80206.

February-March, 1988: Exotic Galapagos. This always-popular tour is being escorted this time by our Assistant Director, Andrew Pierce. It promises to be 21 days of the most incredible flora and fauna you will ever experience; approximately \$4,000. Start reading Darwin now.

Spring, 1988: Bermuda? There are rumblings that it is time to return to Bermuda for a week. If you are interested in this trip, let Andrew Pierce know. The Tour Committee is working on details.

June-July, 1988: Wildflowers of the Pyrenees? A possible repeat of this year's unusual itinerary through northern Spain and southern France due to the enthusiasm of those who could not make the trip in 1987. Stay tuned. Linguistics professor Dr. Allan Taylor looks after this tour.

October, 1988: Lure of the Orient. China and the Orient is Merle Moore's favorite part of the world, and he will share his love of the area with you. This will prove to be an exotic and unusual three weeks—more details later.

January 1, 1989: Behind the Scenes at the Rose Parade. Ever wonder how those floats were made and where all the flowers came from that roll through Pasadena each New Year's Day? Now is the time to find out. DBG tour participants will have a special, week-long behind-the-scenes view of what goes into the incredible display of roses—and tickets to the Rose Bowl Parade itself.

Spring, 1989: Spring Desert Flowers. Moras Shubert will take folks on a 10-day trip through our own backyard—the Southwest. Approximate price is \$1,000.

June-July, 1989: Bloom of the Arctic. Here's a chance to take a trip that you can boast about at cocktail parties—the drama of wildflowers of Greenland, Iceland, Norway and of eternal light of midsummer above the arctic circle. Escorted by Dr. Allan Taylor, professor of linguistics at University of Colorado.

DBG Free Days—"Circle 17"

Denver Botanic Gardens offers free days to residents of Denver City and County on the 17th day of the following months: Starting April 17, those free days will be on the 17th of April (Friday), May (Sunday), June (Wednesday), July (Friday), September (Thursday), October (Saturday) and November (Tuesday).

This might be a good chance to bring several friends who live in Denver with you to visit the Gardens. Proof of residency is required as you enter the gate.

Plant and Used Book Sale "Flower Power"

Join in the "Flower Power." Sneak a peek and buy the pick of the crop at the first-ever pre-sale for the 38th annual Plant and Used Book Sale.

Come rain or shine, "Flower Power" will be held Thursday evening, May 7, from 5 to 8 p.m. You will be directed to the festivities as you enter the gate.

There will be a cash bar, hors d'oeuvres, entertainment and the first chance to choose from over 50,000 plants and 10,000 used books. Dress is casual and the cost is \$40 per person.

"Flower Power" is designed as a fund-raiser for the Gardens and we welcome your support. For additional information, call Nancy Brittain, Director of Development, at 355-3456.

A Reminder: Spring Flower Show April 4 & 5

Dorothy Temple, former Chief Floral Designer for the White House, will be at the Gardens April 4-5, from 1 to 3 p.m. each day. She will give flower arranging demonstrations and discuss her years with Presidents Nixon, Ford, Carter and Reagan.

There is no charge for these programs other than the regular non-member gate admission fee.

A Saturday evening cocktail reception will be given in her honor April 4. For reservations call Evelyn at United Floral Industry, 433-6423.

Ikebana International Celebrates 25th Anniversary

The Denver Chapter of Ikebana International celebrates its 25th anniversary with a banquet in John C. Mitchell II Hall on Friday, April 24, at 7 p.m. Charter and founding members as well as former presidents will be honored at this special event.

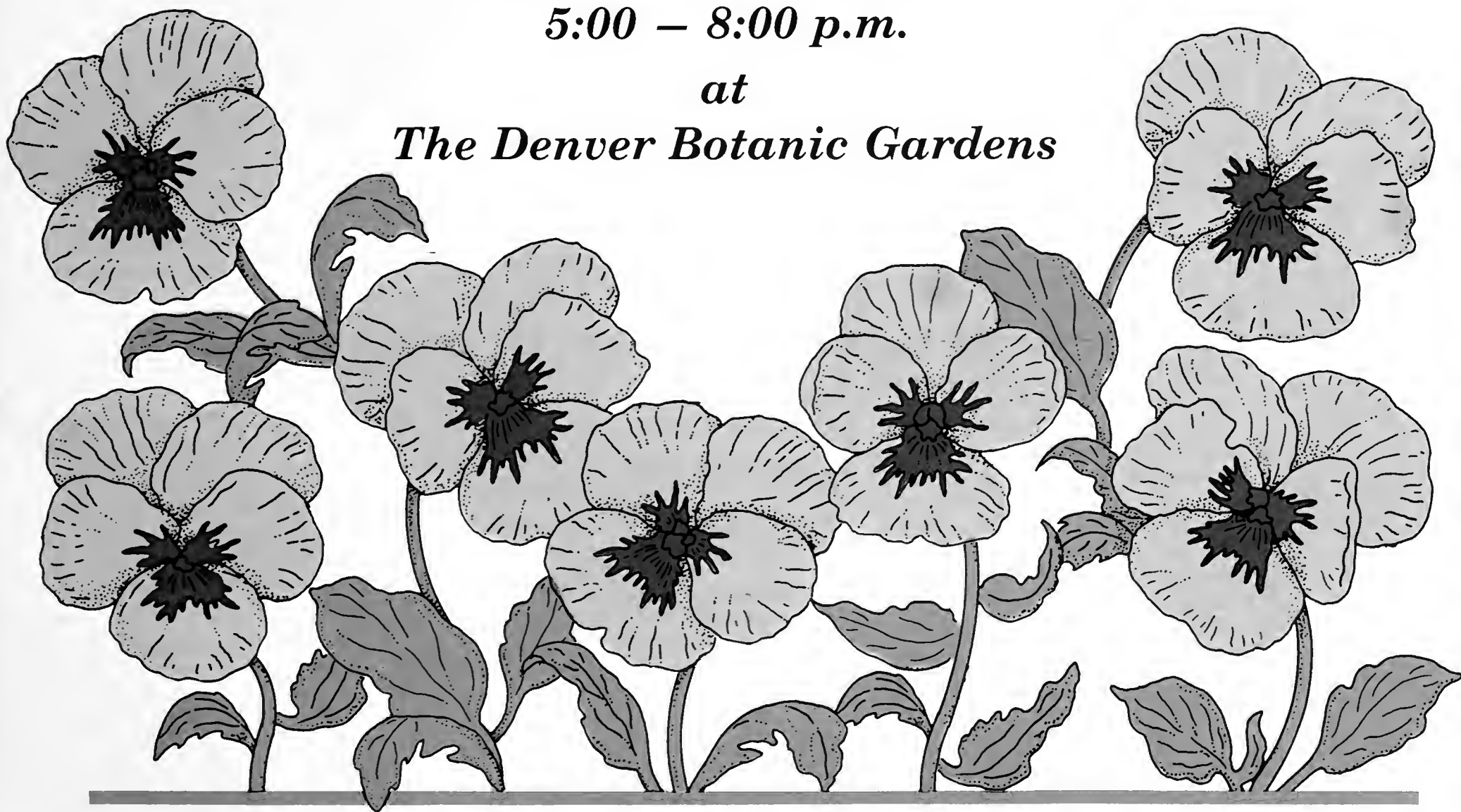
Floral arrangements decorating Mitchell Hall will be left in place after the banquet for the public's enjoyment during the annual show on Saturday and Sunday, April 25 and 26. Guest arrangers will be on hand to demonstrate the Ikebana style from 10 a.m. to 5 p.m. on Saturday and from 10 a.m. to 4 p.m. on Sunday. There is no fee to attend the Ikebana International Show other than the regular non-member gate admission fee.

For more information, call Mrs. Krysuik at 355-8688.

*The Board of Trustees
of DBG
Invites You to
"Flower Power"
a Pre-Sale
for
The 38th Annual Plant and
Used Book Sale*

*Thursday May 7, 1987
5:00 – 8:00 p.m.*

*at
The Denver Botanic Gardens*



*Hors d'Oeuvres
Cash Bar*

Casual Dress

*Entertainment
\$40 Per Person*

_____ Enclosed is my check for \$_____ for _____ reservations.

_____ I cannot attend, but enclosed is my tax-deductible contribution of \$_____.

Name _____

Address _____

City _____ State _____ Zip _____

Telephone _____

Mail to: Mrs. L. C. Fulenwider, III
Denver Botanic Gardens
909 York Street
Denver, CO 80206

Reservation Deadline May 1, 1987
Make Checks Payable to Denver Botanic Gardens

continued from page 2

conditions are such as we are experiencing in Colorado today. That solution to the problem lies in an Endowment Fund sufficiently large enough to offset periodically fluctuating economic conditions.

EN·DOW·MENT: The act or process of bestowing a dower, fund, or permanent provision for support. *Webster's Third New International Dictionary*

The Boettcher Foundation has, in an unprecedented move for this Colorado foundation, issued to the Gardens a "Challenge Grant" of one million dollars (\$1,000,000), on the condition that the Denver Botanic Gardens Foundation raise an additional two million (\$2,000,000) in matching funds by December 31, 1989. When successful, this campaign will have added at least three million new dollars to the Gardens' current Endowment Fund of over one million seven hundred thousand dollars. Wisely invested, these funds will contribute significantly to protecting the Gardens from future budget shortfalls brought about by declining City support and downturns in the economy.

As members of the Gardens you can help in many ways to make this campaign successful. Making a personal contribution to the Endowment Fund drive is the most obvious way in which you can directly participate. The Family Gifts Committee is chaired by Mrs. John F. Falkenberg, and she will welcome a contribution of any amount you may wish to make to help us reach our two million dollar matching fund goal.

Many of you, or your spouses, are affiliated with both large and small corporations in the metropolitan area. A gift from a corporation is a direct investment in having the kinds of cultural and educational facilities in Denver that make our quality of life so desirable and that help to attract the kind of employees to Denver that our successful corporations are seeking. Many corporations will match in part or in full a gift to the Gardens made by one of their employees. If you would like to know if a particular corporation has such a program you can contact the Gardens' Development office (355-3456) to obtain that information.

Yet a third way you can help is to introduce your friends, business associates and neighbors to the Gardens, encouraging them to support the Gardens through membership and by giving a gift to the

Endowment Fund drive. As members, you are our ambassadors in bringing the many benefits of Denver Botanic Gardens membership that you have enjoyed to attention of the others who will also appreciate the beauty and opportunity to learn more about the importance of plants and gardening in our lives.

The generosity of the Boettcher Foundation in making this unprecedented challenge grant can only benefit the Gardens if we are successful in raising the additional matching funds. Your personal gift, and that of others, to the Endowment Fund drive will be matched by one dollar for every two dollars you give. Were you to give a gift of one hundred dollars, the Boettcher Foundation would give the Gardens an additional fifty dollars of matching funds. We must seize upon this opportunity to build an Endowment Fund that will insure the quality of our Denver Botanic Gardens and its programs, not only for our own enjoyment, but for the enjoyment and educational opportunity of gardeners and lovers of the natural beauty and tranquility that the Gardens represents.



Merle M. Moore
Executive Director

DBG and DU's New College Offer Joint Course this Summer

Join leading experts in the fields of horticulture and landscape architecture and learn more about Denver's exotic growing environment. Denver Botanic Gardens and the New College at the University of Denver will present "Oasis Denver: A Patch of Green on the Semi-Arid Plain" on four consecutive Monday evenings beginning June 15. Each session will meet from 6:30 to 9:30 p.m. in John C. Mitchell II Hall.

On Monday, June 15, Denver attorney and popular lecturer Don Etter will open the series with his program, "Water and the Denver Garden System." Mr. Etter has been actively involved in many Denver projects relating to open space, street trees and landscape planning including Historic Denver Inc. and Denver Urban Forest. He will examine the importance of water and

its effects on the development of this area as well as how gardens and other environments elsewhere have influenced and shaped our Denver landscapes.

How these factors plus other relevant considerations have specifically affected the design of Denver gardens will be covered in the second session. In "Denver Gardens—Differences by Design," well-known local landscape architect Jane Silverstein Ries and her associate Cathe Mitchell will discuss differing periods and styles of both large and small gardens. Using familiar Denver gardens as examples, they will explain some of the ever-changing fashions in the plant material around us.

Learn the specifics of appropriate plants for Denver when DBG Botanist Horticulturist Gayle Weinstein presents "Toward a Regional Horticulture" on Monday, June 29. The designer of our Xeriscape Garden, Ms. Weinstein has done much to advocate the use of appropriate native plants in our landscapes. Her program will cover how to use these plants to create the special effects we seek.

Finally, architect Robert Root and landscape architect William Wenk will address, "What are the Choices?" on Monday, July 6. Their program will focus on public and private options for the future. Explore how settlement patterns affect our environment, low-tech solutions to water conservation, the preservation of open spaces and what is being done (and what ought to be done) about planning in Denver.

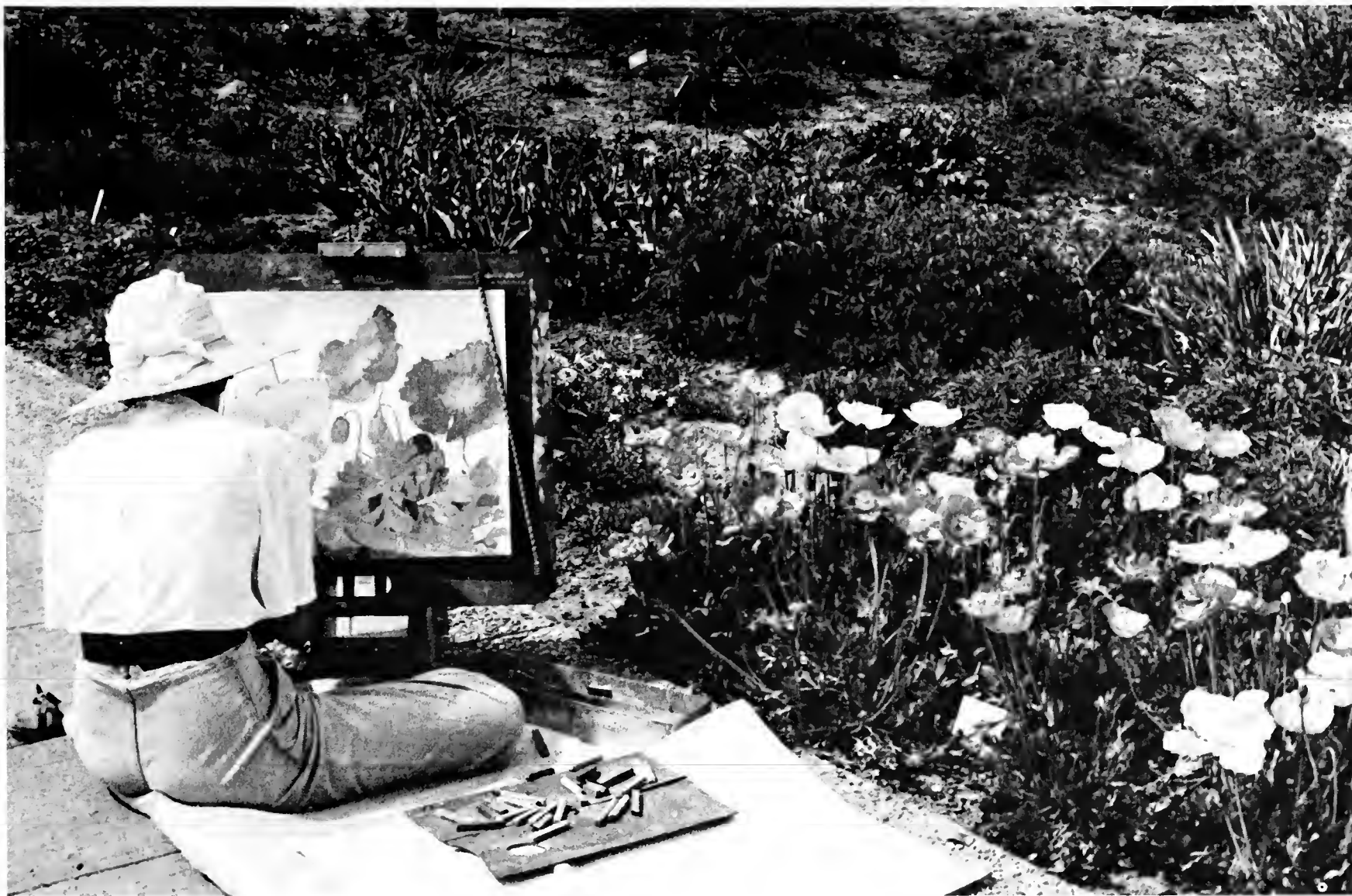
The fee for DBG members for this four-session course will be \$48 and non-members will be charged \$53. Please register using the Education department form on page 11.

Students wishing to take this class for one or two quarter hours of graduate credit must register through New College at the University of Denver; call 871-2291 for additional information. Tuition will be \$130 per credit hour.

Recycle Your Garden for DBG

Clean your garden, make room for new plants and bring your specimens to the Home Donations section of the 1987 Plant and Used Book Sale.

Specific instructions for potting and delivery will appear in the May newsletter. You should, however, pot these plants as carefully and early as possible identifying each with labels. Your donations will make delightful, hardy additions to developing and new gardens, and you will have made a tax-deductible gift to DBG.



Deciduous Flowering Shrubs

(six sessions including a field trip)

Mondays, April 6, 13, 20, 27, May 4 from 7 to 9 p.m.

and

Field Trip on Saturday, May 2 from 9 a.m. to noon

Morrison Center at 2320 East 11th Avenue, Denver

The emphasis of this course will be on identifying and examining the landscape value of over 50 species of deciduous flowering shrubs that are hardy in the Denver area.

Through the use of slides, students will view each species during all four seasons. A Saturday morning field trip is scheduled to provide a closer look at some of the plants discussed in class.

Instructor: Jeffrey Frank studied landscape architecture at Pennsylvania State University and the University of Virginia and is presently employed as a landscape architect in Denver.

Fee: \$45 members/\$48 non-members

Perennial Pleasures

(five sessions)

Tuesdays, April 7, 14, 21, 28 May 5

7 to 9 p.m. DBG House

With proper planning and planting, perennials can enhance any garden with long term beauty and reduced maintenance. Discover the pleasures

of perennial gardening in this five-session course that covers garden design, soil preparation and cultivation as well as a multitude of suggested plants.

Instructor: Andrew Pierce is a horticulturist and is assistant director of DBG.

Fee: \$40 members/\$44 non-members

Mushroom Identification

Wednesdays, April 8, 15, 22 (three sessions)

7 to 9:30 p.m. Classroom C

Although this introductory course in mushroom identification is for beginners, it will also provide a firm base for those who may wish to pursue the subject in more depth in the future.

Three slide lecture sessions will cover structure, growth, habitat and seasonality of mushrooms as well as information on toxicity and edibility. The use of field guides and keys will be demonstrated and recommendations will be given on those most useful in our area.

The main emphasis will be spring-fruiting mushrooms of the city and lower elevations. Collecting, cleaning and cooking hints will be provided.

Handouts will be given but students should be prepared to take additional notes. Participants will learn to positively identify more than 20 common edible, non-edible and poisonous species. An optional field trip will be scheduled according to

local mushroom fruiting times.

Instructor: Marilyn Shaw lectures and teaches extensively and has been active in the Colorado Mycological Society for 13 years. She has studied with Alexander Smith, Harry Thiers and Orson Miller, Jr. as well as many other prominent mycologists. Ms. Shaw is a consultant in mushroom identification for DBG and Rocky Mountain Poison Center.

Fee: \$30 members/\$33 non-members

Dig Right In

(one session)

Saturday, April 11

10 a.m. to noon

Morrison Center at 2320 East 11th Avenue, Denver

In this hands-on soil preparation workshop, students will learn to make the most of Colorado's heavy clay soils. Learn the pros and cons of organic and non-organic soil amendments as well as the importance of soil testing.

Because participants will go outside to try their hands at single and double digging, wear work clothes and practical shoes.

Instructor: Lynn Thompson is a horticulturist who coordinates DBG's Community Gardening Program. She has taught many topics pertaining to home vegetable gardening in Colorado.

Fee: \$8 members/\$9 non-members

Limit: 12

CLASSES

Spring
1987
Denver Botanic Gardens



Gardening For Results

Tuesdays from 7 to 9 p.m.

Morrison Center at 2320 East 11th Avenue. Please indicate your program titles if you are not attending the entire series.

Professional horticulturists will present the background and techniques needed to achieve bountiful and beautiful gardens in this series of programs. Attend them all or choose those that suit your particular needs.

Tuesday, April 7

Grow Your Own Bedding Plants

Learn how to choose appropriate varieties, containers and soil as well as the proper techniques of timing, seeding and transplanting. Specific light and temperature requirements for seedlings will also be covered.

Tuesday, April 14

The Small Space Vegetable Garden

Methods such as wide row spacing, successive planting and intercropping will help you grow more produce in your city garden than you ever thought was possible. Learn sources of appropriate varieties.

Tuesday, April 21

Organic Approaches to Vegetable Gardening

Learn non-chemical approaches to soil improvement and fertilizing as well as which preventive measures will help to avoid pests in the garden. Suitable vegetable varieties will also be discussed.

Tuesday, April 28

The Culinary Herbs

This class is an introduction to the culture and uses of the cooking herbs. Plan an herb garden or use herbs to accent your annual beds or perennial borders.

Tuesday, May 12

All About Tomatoes

Everything you need to know to grow America's favorite garden vegetable will be presented. Topics include determinate and indeterminate varieties, planting, pruning, fertilizing and problems such as aphids, whiteflies, sunscald and blossom end rot.

Tuesday, May 26

Botany for Gardeners

Knowing basic floral structure and plant parts will help you understand proper horticultural practices. Take the mystery out of wilting, bolting, sunscald and deep watering.

Tuesday, June 2

Composting

Learn how to take leaves, grass clippings, small prunings and other refuse and pile them in such a way that the soil bacteria can thrive and break them down into a usable form to enrich your garden soils.

Instructors: Jim Borland, Lynn Thompson, Pat Pachuta and Gayle Weinstein are all horticulturists on the DBG staff and John Brett is the former coordinator of our Community Gardening Program.

Fee: Each program is \$8

Designing the Small Home Landscape

(two sessions)

Saturdays, April 11, 25

8:30 a.m. to 12:30 p.m.

Classroom B

In this course students will learn how to plan a small site landscape for a new or existing home. Appropriate small landscapes include small city or suburban lots, patio homes and townhouses and courtyards.

Four hours of instruction by slide lecture and demonstration will be interspersed with hours of discussions, addressing student case studies and tours of the DBG grounds. Topics to be covered are design procedures and principles, Front Range ecology and "xeriscapes," drainage and earthforms, paving structures and planting design from trees through vines, ground covers and perennials. Printed materials and local resources are included.

Prior to the beginning of class, registrants will receive directions for making site drawings and a list of landscape needs. In order to complete this pre-class assignment, students should register by April 1.

Instructor: Jan Caniglia, MLA, ASLA, has practiced landscape architecture for seven years in the areas of site design, environmental planning and community design. She has taught numerous classes on Colorado landscape design and historical landscapes.

Fee: \$35 members/\$38 non-members (includes \$3 for materials)

The Aquatic Garden: Plants

(one session)

Saturday, April 11

1 to 4 p.m. Classroom C

Learn to create a splashy display garden in a whiskey barrel or a small backyard pool. Learn the selection, culture and sources of hardy and tropical waterlilies and bog plants, floating plants, lotus and the giant water platter lily, *Victoria* sp.

Additional subjects are propagation and overwintering techniques, dwarf waterlilies and algae control.

Instructor: Joseph V. Tomocik is a Gardener Florist II at Denver Botanic Gardens whose responsibilities include the Aquatic Plant Display.

Fee: \$12 members/\$13 non-members

The Aquatic Garden: Basic Pool Construction

(one session)

Saturday, April 18

1 to 4 p.m. Classroom C

Backyard gardeners and do-it-yourselfers will learn how to install their own pools, from start to finish. Included are proper site selection and design considerations as well as how to use membrane liners such as PVC (polyvinyl chloride) and Hypalon (chlorosulfonated polyethylene). Although the main emphasis will be on these materials, the pros and cons of concrete and urea resin will also be discussed.

Class members will participate in the completion of a demonstration pool on the DBG grounds by doing the actual shelf finishing work and installing the liner.

Instructor: An avid water gardener, John B. Mirgon is a board member of the Water Lily Society and the past president of the Colorado Water Garden Society.

Fee: \$12 members/\$13 non-members

The Shady Garden

(two sessions)

Thursdays, April 16, 23

7 to 9 p.m. Classroom C

Almost every garden includes a shady (and often neglected) spot that challenges the home gardener. Learn landscaping solutions and how to grow appropriate plants in this two-part course. Information on colorful annuals (begonias, impatiens and browallia) and perennials (columbine, astilbe and dicentra) as well as interesting foliage (ferns) will be provided.

Instructor: Andrew Pierce

Fee: \$16 members/\$17.50 non-members

Plant Life Field Trip: Red Rocks Park

Wednesday, April 22

9 a.m. to 2 p.m.

This is an opportunity to observe some of the delightful early spring wildflowers of Red Rocks Park. Sagebrush buttercups, Easter daisies, spring beauties, Oregon grape and some of the mustards should all be in flower. Bring a lunch.

Leader: Peter Root is an amateur botanist who volunteers regularly at the Kathryn Kalmbach Herbarium at DBG; he is also a volunteer naturalist at Roxborough State Park.

Meet: at 9 a.m. at Denver Botanic Gardens main parking lot to carpool and share gasoline expenses.

Fee: \$2 per person

Intensive Vegetable Gardening Workshop

(one session) 10 a.m. to 2:30 p.m.

Section I: Saturday, April 25

Section II: Saturday, May 23

DBG's Morrison Center at 2320

East 11th Avenue, Denver

Please indicate your section on the registration form.

Grow more vegetables in a smaller space and use less energy doing it. This workshop will cover garden design, variety selection, maintenance, specific culture of common vegetables and potential problems with pests and diseases.

A hands-on session outdoors will provide actual experience in intensive gardening methods such as double digging, soil preparation and planting techniques such as wide row spacing and intercropping.

Please dress appropriately in work clothes and practical shoes and don't forget your lunch.

Instructor: Lynn Thompson

Fee: \$16 members/\$17.50 non-members

Limit: 12

Tree Walk at Fairmount Cemetery, Denver

Sunday, April 26

1:30 to 3:30 p.m.

During the summers of 1890 and 1891, over 4,000 trees including seven species of oak, sycamores, silver maples, Kentucky coffee trees and pines were all planted at Fairmount Cemetery. This is an opportunity to observe these as well as some more unusual trees such as scarlet oak and yellow buckeye.

A walk through these mature, historic specimens will sharpen your identification skills.

Instructor: Dr. William G. Gambill, Jr.

Meet: promptly at 1:30 p.m. just inside the entrance of Fairmount Cemetery which is located at East Alameda and Quebec Streets in Denver.

Fee: \$7.50 members/\$8.25 non-members (includes \$3 for *Trail of Trees*, a 64-page illustrated guide to Fairmount Cemetery)

Wildflowers of the Plains Field Trip

(one session) 10 a.m. to 3 p.m.

Section I: Wednesday, May 13

Section II: Saturday, May 16

Please indicate your section on the registration form.

This spring field trip on the edge of the plains in Plainview is an

opportunity to see the plains' spring flora in its full glory. See the Rocky Mountain iris, early composites, monument plant, vetches, Colorado loco, pasqueflower and many others.

Don't forget to bring your lunch and drinking water; if you have wildflower field guides or a hand lens, they would also be useful.

Meet: Promptly at 9 a.m. at the junction of highways 93 and 72 in the parking lot on the southeast side of the intersection. Call the Education department if you need directions.

Instructor: Paul Kilburn, Ph.D., taught botany at Principia College, Illinois, as well as summer flora and ecology classes for the University of Colorado. He has spent several summers doing tundra research at the Institute of Arctic and Alpine Research, University of Colorado at Nederland.

Fee: \$5 members/\$5.50 non-members

Alpine Amble

(one session)

Section I: Thursday, April 30

Section II: Thursday, May 14
10 to 11 a.m. DBG's Alpine House

Please indicate your section on the registration form.

Join our alpine garden experts on a walk that will highlight some of the special little plants you might otherwise miss in our collection.

Late April is the best time to see unusual bulbs such as miniature Greek tulips. In addition, the early drabas, saxifrages and primroses will all be blooming along with some exotic color forms of pasqueflowers such as the yellow one from the mountains of Russia.

Participants on the mid-May amble can expect to see a profusion of color as many choice groups of alpine will be flowering. Anticipate dwarf brooms, alyssums, delicate androsaces and many rare species of dwarf iris.

Instructors: DBG staff members Panayoti Kelaidis and Sandy Snyder are responsible for the Rock Alpine Garden and take special pleasure in sharing it with others.

Fee: \$4 members/\$4.50 non-members

Limit: 20

Herbs for Flavor

(four sessions)

Wednesdays, May 20, 27, June 3, 10
7 to 8:30 p.m. Classroom B

The attractive forms, colors and textures of the culinary herbs make them ideal garden plants and nothing can compare with their freshly harvested flavor.

Learn to plan an herb garden as well as the propagation, cultivation and harvesting of the major cooking herbs. Discover how to utilize them to add zest and variety to your cooking.

Instructor: An avid herb gardener, Pat Pachuta is DBG's education director.

Fee: \$28 members/\$31 non-members (includes \$4 for materials)

Horticultural Therapy Educational Program

Horticultural therapy is an adjunctive therapy using plants and plant-related activities to modify or facilitate change in people.

For additional information about the horticultural therapy program at DBG's Morrison Horticultural Demonstration Center (located at 2320 East 11th Avenue, Denver) and its educational program, please contact Lynn Thompson at 575-3751, extension 43.

Horticultural Techniques for Therapy Programs

Tuesdays, April 7, 21, May 5, 19,
June 2, 16, 30

9:30 to 11:30 a.m.

Morrison Center

A well-rounded skills base in horticulture is the foundation of a sound horticultural therapy program. This course offers the opportunity to become more knowledgeable and self-assured with a variety of plant materials and gardening activities.

Tuesday, April 7

Flower Gardening: Designing and Planting, Annuals and Perennials

Tuesday, April 21

Flower Gardens: Plants for Cutting and Drying

Tuesday, May 5

Herbs: Culture, Design, How to Start Plants

Tuesday, May 19

Interior Plantscaping: Design and Tried-and-True Plants

Tuesday, June 16

Greenhouse Management: Design and Construction

Tuesday, June 30

Greenhouse Management: Production and Maintenance

Instructor: Lynn Thompson

Fee: Each program is \$9 for members or \$10 for non-members. Please be sure to include the dates of the programs you've selected on the registration form.



"Primrose" by
former
botanical
illustration
student Rob
Proctor

Beginning Botanical Illustration – Spring Unfolds

**Wednesdays, April 1, 8, 15, 22, 29,
May 6**

9:30 to 11:30 a.m. Classroom B

This introductory course will stress accurate drawing of flowers, roots, stems and leaves. Fresh spring flowers from the garden, including tulips and daffodils, will be used and dissected when required to draw individual plant parts.

No previous drawing experience is necessary and students will work with pencils, colored pencils and will finally progress to watercolors. This course is certain to increase your

observation skills and heighten your enjoyment of spring.

Instructor: Angela Overy

Fee: \$54 members/\$59 non-members
(includes \$6 for materials)

Limit: 15

Japanese Tea Ceremony

Section I: Sunday, April 19
Section II: Saturday, April 25
Section III: Sunday, May 17
Section IV: Saturday, May 30

(one session) 2 to 3 p.m.
**Tea House in DBG's Japanese
Garden**

**Please indicate your section on
the registration form.**

Because of its emphasis on such
concepts as harmony, respect, purity,

tranquility and elegant simplicity, the
tea ceremony has for centuries been
considered the epitome of Japanese
life. This is an opportunity to
experience an authentic tea ceremony
in the quiet splendor of our Japanese
Garden.

Instructor: Kathryn Kawakami has
done much to inform Denver area
residents and students about the
culture of Japan. She will be assisted
by William Crowder who studied the
Tea Ceremony in Japan at Ura Senke.

Fee: \$4.50 members/\$5 non-members

Make Your Own Easter Basket

(one session)

Saturday, April 4

9 a.m. to 4 p.m. Classroom B

Start a family tradition by creating
your own handmade Easter basket
from natural reed. Wrap its handle
and decorate it appropriately.
Students will complete one basket in
this all-day class.

No previous experience is necessary
and participants should bring a sack
lunch and pruning shears, sharp
knife and an old towel to class.

Instructor: Robin Taylor Daugherty

Fee: \$30 members/\$33 non-members
(includes \$10 for materials)

Ukrainian Easter Eggs

Saturday, April 4

(one session) 1 to 4:30 p.m.

**DBG's Morrison Center at 2320
East 11th Avenue, Denver**

Ukrainian Easter egg decorating, or
pysanky, is a centuries-old technique
of creating intricate and brilliantly
colored patterns on eggs. The process
is similar to that used in batik:
designs are drawn with molten wax
and are over-dyed.

Please bring a candle, rubber gloves
and three or more uncooked, jumbo or
extra large eggs to class; all other
materials will be provided.

Instructor: Peggy Johnston studied
art education at the University of
Wyoming and has extensive teaching
experience.

Fee: \$16 members/\$17.50 non-
members (includes \$2 for materials)

“Alpines Around the World: Mountain Wildflowers for Small Gardens” Set for June 5-6, 1987

Learn how to incorporate these choice plants into your home garden at this two-day symposium scheduled for June 5-6 in John C. Mitchell II Hall.

An exciting agenda is planned that will feature well-known growers from other parts of the country as well as local specialists. Speakers include distinguished landscape designer Harland J. Hand, a naturalistic garden specialist, whose own garden was just recently featured in *Connoisseur Magazine*; popular lecturer and horticulturist Ted Kipping whose gorgeous botanical photographs have graced many publications such as *Rocky Mountain Alpines* and numerous covers of *Pacific Horticulture Magazine*; and Lee Raden, current president of the American Rock Garden Society whose prize-winning alpines have been awarded “Best of Show” at the Philadelphia Flower Show on several occasions.

They will be joined by DBG Plant Propagator and native plant expert Jim Borland and other talented members of the Rocky Mountain Chapter of the American Rock Garden Society.

Symposium participants may choose to attend either or both days of lectures, workshops and demonstrations. A complete schedule and registration materials will be found in your May newsletter.

Denver Botanic Gardens
909 York Street
Denver, Colorado 80206
Fees for courses should be paid in advance by check or money order made out to Denver Botanic Gardens. Since the space is limited in many courses, registration should be mailed in promptly. Your registration will NOT be acknowledged. Your name will be placed on the class list the day your money is received. No enrollments for class by phone please. All courses given are subject to a minimum enrollment of ten students. For further information, please call 575-3751.

Gardening Tips for April by the Drs. Green

This Month

You can begin to remove the protective mulch on your flower and shrub beds but don't remove all of it until May. By doing it gradually, you protect the new growth that may be starting to grow from sudden temperatures and drying cold. Follow the same procedures for your roses.

Annuals for Shade

Q Which annuals can I grow in a shady spot?

A Impatiens, begonias, fuchsias, coleus and alternanthera all do well in the shade. If the bed gets some sun, you might try ageratum, salvia, lobelia or browalia.

Fertilizing Annuals

Q When should I fertilize annuals?

A You could use a fertilizer with an analysis of 10-6-4 at planting time to promote leaf and root growth. Our soils are high in phosphorus but it may not be available to the plants, so if you fertilize again later in the season, choose one with a lower percentage of nitrogen, such as 5-10-5, to encourage flower development.

Annuals for Pots

Q Which annuals will do well in containers or planters?

A Look for those with a compact or trailing habit. There are many to choose from including: ageratum, alyssum, impatiens, browallia, celosia, coleus, geranium, lobelia, marigold, nasturtium, nicotiana, petunia, salvia, verbena and zinnia.

High Altitude Annuals

Q When can I plant annuals in Vail (elevation 8,600 feet)? Which are best?

A Choose annuals that grow well under cool conditions, such as

sweet peas, pansies, annual phlox, snapdragons and Iceland poppies. Do not set plants out until after June 1 and plant them closer together than you would at a lower elevation.

Thatch

Q Should I remove the thatch from my lawn every spring?

A Thatch is the layer of dead and living stems and roots that accumulates between the soil surface and the leafy foliage. The best time to aerate or remove thatch from a lawn is in the fall, but it can be done in the spring. If the thatch build-up is 1/2 inch or less, it does not need to be removed.

Pre-Emergent Herbicides

Q Can I use a pre-emergent herbicide to control weeds in my newly seeded lawn?

A Pre-emergent herbicides prevent seeds from germinating and while there are some products that are approved for this use, be sure to read the label carefully. We recommend that you wait until after the grass is well established before using any herbicide.

Easter Lily

Q When my Easter lily has finished blooming can I plant it outside in my Lakewood garden?

A Easter lilies are generally not hardy in our area though they may survive for a couple of seasons with a heavy mulch of leaves or straw. The plant will probably grow a new stem that will flower early in the fall.

The Drs. Green welcome your comments and questions for possible inclusion in this column. Please contact them by writing: Drs. Green, Denver Botanic Gardens, 909 York Street, Denver, CO 80206.

Registration Form for Classes and Field Trips

The enclosed check, in the amount of _____, is to cover the registration fees for the following classes:

Name and section of classes _____

Name _____

Address _____

City _____ State _____ Zip _____

Home Tel. No. _____ Business Tel. No. _____

Member of Denver Botanic Gardens? ☐ Yes ☐ No

C A P R E A P R

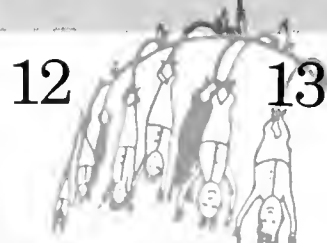
Regular Meetings of Plant Societies

A number of plant and horticultural groups meet fairly regularly at the Denver Botanic Gardens. Here is a listing of those groups and a general indication of when they usually meet. For more specific meeting times and locations as well as for information on how to contact a representative of the group, please call the Botanic Gardens switchboard during business hours at 575-3751.

African Violet Society, 4th Thurs. of 7 months; **Bonsai Society**, 1st & 3rd Tues.; **Cactus & Succulent Society**, 2nd Tues.; **Civic Garden Club**, 1st Fri.; **Colorado Native Plant Society**, 4th Wed.; **Gloxinia Gesneriad Growers**, 1st Sat.; **Hemerocallis Society**, 3rd Sun. of 4 months; **Ikebana International**, 4th Fri.; **Iris Society**, spring & fall dates; **Men's Garden Club**, 4th Thurs.; **Mycological Society**, 2nd Mon.; **Orchid Society**, 1st Tues.; **Rock Garden Society**, 3rd Wed.; **Rose Society**, 2nd Thurs.; **Ultra Violet Club**, 4th Mon.; **Water Garden Society**, 2nd Sun. of 5 months

From Nonsense Botany by Edward Lear

5 Spring Flower Show



19 Japanese Tea Ceremony

26 Ikebana International Show
Tree Walk at Fairmount Cemetery

Coming Next Month

May 7 "Flower Power" Pre-Sale

6 Deciduous Flowering Shrubs

13

20



Manypeeplia Upsidownia

May 8-9 Plant and Used Book Sale

Guittara Pensilis

7 Hort. Techniques, Grow Bedding Plants, Perennials

14

The Small Space Vegetable Garden

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Organic Approaches to Vegetable Gardening, Hort. Techniques

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The Culinary Herbs

May 12 All About Tomatoes
May 14 Alpine Amble

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Beginning Botanical Illustration

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Red Rocks Park Field Trip

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May 16 Wildflowers of the Plains Field Trip

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"Tree-Mend-Us Denver"

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Piggianiggia Pyramidalis

16

23

30

Alpine Amble

May 17 Japanese Tea Ceremony
May 20 Herbs for Flavor

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Free Day for Denver City/County Residents

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May 26 Botany for Gardeners
May 30 Japanese Tea Ceremony

S

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Spring Flower Show

Make Your Own Easter Basket

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The Aquatic Garden, Dig Right In, Ikebana, Small Home Landscape

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The Aquatic Garden: Basic Pool Construction

25

Vegetable Gardening Workshop, Tea Ceremony
Ikebana International Show

May 30-31 Iris Show and Sale

Denver Botanic Gardens, Inc.
909 York Street
Denver, Colorado 80206
303-575-3751

"Flower Power" Pre-Sale Page 5



April 1987

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Address correction requested



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Denver Botanic Gardens

May 1987

Number 87-5



W

S

Special Sale
Insert Page 7

38th Annual Plant and Used Book Sale May 8-9

Spring begins at Denver Botanic Gardens' annual Plant and Used Book Sale. Held rain or shine on Mother's Day weekend, it is the secret of success for many local gardeners. This year's sale is Friday, May 8 and Saturday, May 9 from 9:30 a.m. to 5:30 p.m. and there is no admission fee.

New in 1987 is a pull-out section in the middle of this newsletter that should be saved for Plant Sale weekend. Carry it with you and follow the map to your favorite areas. Also new are check-out lanes at the north entrance (Gaylord Street) and the south entrance (off the Botanic House parking lot at 909 York Street). Both locations will have express check-out lanes and volunteers to assist with loading your purchases into your cars.

"Alpines Around the World: Mountain Wild Flowers for Small Gardens"—June 5,6

Learn how to bring some of the spectacular beauty of our mountain landscapes to your city garden by growing alpine wild flowers. Plan now to attend the fourth annual rock gardening symposium presented by Denver Botanic Gardens and the Rocky Mountain Chapter of the American Rock Garden Society on Friday and Saturday, June 5-6 in John C. Mitchell II Hall.

In "Alpines Around the World: Mountain Wild Flowers for Small Gardens," national authorities and local experts will show you how to select and grow choice mountain wild flowers through slide lectures,
continued on page 4

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This photo, donated by Steve Collector, will be featured on the 1987 Plant and Used Book Sale poster. Two thousand 22 by 30 inch posters are being printed courtesy of Colorado Homes & Lifestyles magazine. Design and layout was provided by

Schenkein/Associates, a public relations, advertising and marketing firm. Watch for these promotional posters around town and consider purchasing one to frame at the Information/Membership desk at the sale. Cost is \$10.

From the Director: Springtime in the Rockies

The pasqueflower, *Pulsatilla patens* ssp. *multifida*, has already made its appearance on our high plains and in the foothills. By the end of May one will find it in bloom in the aspen breaks of the montane zone, beckoning us to follow a progression of spring up the mountainsides. One of the real joys of living in Colorado is the realization that here, spring is not an ephemeral wisp of a season (except perhaps in Denver), but rather a series of awakenings of nature, becoming evident in March on the high plains and ending in late June or early July in the dark subalpine forests with their late melting snows.

At the Gardens spring began gently in late March with the emergence of winter crocus and other early bulbs and the flowering of winter plum, *Prunus maume*, in the Japanese Garden. The Rock Alpine Garden, which mirrored these subtle changes of season in March and April, has now exploded into an extravagant and riotous display of flowering which is unequaled in diversity or beauty at this season of the year. In the Japanese Garden a pair of mallard ducks that nest each spring on the island in the pond are back, and it should not be long before they are seen with a string of ducklings swimming behind them. May is also the month when our showiest displays of tulips and other Dutch

bulbs are at their best.

One of the Gardens' most important fund-raising events occurs on May 8 and 9, the annual Plant and Used Book Sale, which raises thousands of dollars needed to operate the Gardens and to purchase new books for our library. Jeanne Ruggles and her dedicated corps of volunteers have worked very hard during the 12 months since the last sale to make this year's event one that will be both fun for our customers and will provide vital operating revenue for the Gardens.

Be sure to check the extensive listing of classes and other educational opportunities to be found in this newsletter. In addition to practical gardening courses you will find field trips to view wild flowers of the plains and foothills, guided walks through the Rock Alpine Garden, art classes, opportunities to observe the Japanese Tea Ceremony performed in our tea house, and many other interesting events. Plan to attend our two-day symposium on small space gardening, "Alpines Around the World: Mountain Wild Flowers for Small Gardens," which is scheduled for June 5 and 6. Members of our staff will join distinguished national authorities in presenting this interesting program. For those of you too busy to take classes, the Helen Fowler Library provides an invaluable resource for information on all aspects of botany and horticulture. As members, you can check books out and enjoy reading

them in the comfort of your own home.

We Coloradoans work hard to create bountiful gardens out of this semiarid desert we live in and, as a consequence, we appreciate the fruits of our own and others' labor in this regard. Could it be that just maybe, experiencing the joy of spring not once, but several times as it advances up our magnificent mountains, is a kind of reward for our having overcome many challenges of soil and climate to produce gardens of enduring beauty? Whatever the reason, it is a gift we should treasure and enjoy.

Merle M. Moore

Merle M. Moore
Executive Director

Tributes

In honor of Mr. & Mrs. Adolph Coors IV
James G. Coors

In honor of Mr. & Mrs. Anson Garnsey
James G. Coors

In memory of Anita Brenkman
Mrs. Leo Jacobs
Lillie Ryder

In memory of Katherine Lynch Brown
Maxine Hartner Sawyer Atkinson

In memory of Katherine Cosgriff
Mrs. William Grant

In memory of Anita L. Carey
Gordon & Gloria Slater

In memory of Richard M. Davis
Mr. & Mrs. George M. Canon
Mr. & Mrs. Newell M. Grant
Dr. & Mrs. William C. Jackson, Jr.

In memory of Lucien Gignac
Marc L. Champigny
Solange Gignac
Lucien A. Vilandre

In memory of Lucian Long
Margaret Wallace

In memory of Joseph Silverstein
Margie Wortzman

In memory of Charles Weddle
Mr. & Mrs. Jess Gibson

Fruiting
pasque-
flowers



Green Thumb News Number 87-5 May 1987

Published monthly by the Denver Botanic Gardens Education department, 909 York Street, Denver, Colorado 80206, and edited by Patricia A. Pachuta and Carolyn Knepp. Subscription to this newsletter is a benefit of membership in the Botanic Gardens. For membership information, please write the Membership department at the above address or call 575-3751.

Deadlines for this newsletter are: Major news stories, feature material (including photographs or artwork), and short notes are all due not later than April 20 for June, May 20 for July and June 19 for August.

Please plan in advance and meet deadlines. Late material cannot be used. Stories must be typed, double-spaced, preferably on copy paper provided by the editor. Please call the Education department at 575-3751 for details.



Accredited by the
American Association
of Museums

United Bank Again Underwrites Summer Concerts at DBG for 1987

Concert season is near, thanks to the generosity of United Bank of Denver and the energy of KCFR 90.1 FM, so start planning now for relaxing evenings in DBG's amphitheater with friends and good music. Ten concerts are scheduled and the following list provides dates and times. Descriptive information on each group and ticket locations will all be provided in your June *Green Thumb News*.

The Boulder Bassoon Band

Thursday, June 25, at 7:30 p.m. (rain date—Sunday, June 28 at 10 a.m.) Gate opens at 6 p.m. *Tickets on sale starting Monday, June 15.*

The National Repertory Orchestra (The Colorado Philharmonic)

Thursday, July 9 or Friday, July 10 at 7:30 p.m. (rain date—Sunday, July 12 at 10 a.m.) Gate opens at 6 p.m. *Tickets on sale starting Monday, June 29.*

Hot Rize

Thursday, July 23, or Friday, July 24 at 7:30 p.m. (rain date—Wednesday, July 29 at 7:30 p.m.) Gate opens at 6 p.m. *Tickets on sale starting Monday, July 13.*

Music from the Aspen Music Festival: The American Brass Quintet with the "Aspen Brass"

Thursday, August 6 at 7:30 p.m. (rain date—Saturday, August 8 at 7:30 p.m.) Gate opens at 6 p.m. *Tickets on sale starting Monday, July 27.*

Music from the Santa Fe Chamber Music Festival

Thursday, August 20 or Friday, August 21 at 7 p.m. (rain date—Saturday, August 22 at 10 a.m.) Gate opens at 5:30 p.m. *Tickets on sale starting Monday, August 10.*

The Denver Chamber Orchestra

Thursday, September 3 or Friday, September 4 at 7 p.m. (rain date—Sunday, September 6 at 10 a.m.) Gate opens at 5:30 p.m. *Tickets on sale starting Monday, August 24.*

Young Audiences Summer Family Concerts Scheduled

"Listen to the Gardens," the popular Young Audiences summer family concert series held in Denver Botanic Gardens' amphitheater, will feature ballet, opera and dixieland jazz this year.

These delightful Tuesday evening picnic concerts will be held June 30, July 14 and 28. Advance tickets will be \$3.50 each for members of Denver



The Boulder Bassoon Band opens the 1987 summer concert series.

Botanic Gardens or Young Audiences during the month of May only. Call 826-3465 or mail your check with a self-addressed, stamped envelope to Young Audiences, 1415 Larimer Street #306, Denver, CO 80202. Please be sure to indicate how many tickets you want and for which performances.

Tickets will go on sale to the public June 1 at \$4 each. Children under 2 are free.

Duain Wolfe and the Central City Opera Apprentices will provide "Garden Variety Opera" on June 30. Expect to thoroughly enjoy their rousing excerpts from this season's Central City offerings including *Vagabond King*. July 14 brings *Snow White*, staged by the Colorado Ballet's special Young Audiences Ensemble. The final concert on July 28 will delight all with music and dance ranging from Scott Joplin to contemporary jazz with the Goldrush Dixieland Band and featured dancers.

Bring the family and enjoy a musical picnic in the Gardens! More

details on these performances will appear in future issues of the *Green Thumb News*.

Iris Show and Sale May 30-31

Region 20 of the American Iris Society will hold their Iris Show and Sale at Denver Botanic Gardens Saturday and Sunday, May 30-31. John C. Mitchell II Hall opens at 1 p.m. Saturday with displays of irises in groups or as individuals. A sale of freshly dug irises will benefit DGB's gardens as well as your own.

Highlights of the show include the latest introductions by commercial growers, selected seedlings of hybridizers and artistic arrangements. The public is invited to visit on Saturday, May 30, between 1 and 4:45 p.m. and on Sunday, May 31, from 10 a.m. to 4:45 p.m. There is no additional charge to attend this show other than the usual non-member gate fee.

"Alpines Around the World" continued from page 1

workshops and demonstrations. Discover which wildlings will adapt to your garden as well as how to combine them naturally and artistically in this very practically oriented symposium.

A new feature this year is the opportunity to visit carefully selected local gardens that exemplify key principles and ideas presented in the conference. On Friday and Saturday afternoons, participants will be able to take a firsthand look at some interesting and successful approaches to common landscaping concerns. Visit an exuberant wild flower meadow in an urban setting. Come see just how large rocks and tiny plants are effectively combined in the small front yard of a city lot.

Although the modern landscape may be smaller than ever, you can still grow a selection of interesting plants. Many mountain wild flowers are especially adapted to the soils and exposures of the Colorado garden and their uses are hardly limited to a rock garden.

Demonstrations and a variety of workshops from which to choose will be available both days. Small group workshops will provide the opportunity to meet speakers on a one-to-one basis. As in the past, rock gardening exhibits and a plant sale will be open to the public.

The deadline for preregistration is Wednesday, May 27 and walk-in registrations will be accepted, on a space-available basis, on the days of the symposium. "Alpines Around the World: Mountain Wild Flowers for Small Gardens" promises to provide stimulating inspiration and practical information to both the beginning and advanced gardener. Register now to ensure your choice of workshops and demonstrations.

Recycle Your Garden for DBG

Is this the year to divide your iris, chrysanthemums, violets, yarrow or lily-of-the-valley? Don't forget the annual Plant and Used Book sale at the Gardens if you do. The Plant Donations section will take all your potted discards, and sell them for the Gardens.

Please label all pots. They may be delivered to DBG May 4 through May 7 and placed on the west side of the service entrance (11th Avenue and Gaylord Street). Look for the "Plant Donations" sign. DBG will make pick-ups for large donations on May 6 if you notify us prior to that date. For pick-ups or information, call Nan Burnett (758-3080) or Lainie Jackson (333-2298).

Drawings from Janet L. Wingate's Alpine Wildflowers of Mt. Goliath.

"Alpines Around the World: Mountain Wild Flowers for Small Gardens" Program

Friday, June 5, 1987

8:30 a.m. — Registration
9:00 — Opening remarks. Merle M. Moore, Executive Director, Denver Botanic Gardens

9:10 — "The Small Garden: Life Among the Pebbles" by Lee Raden. President of the American Rock Garden Society, Lee is an outstanding gardener who has also served as vice president of the Pennsylvania Horticultural Society. He exhibits every year at the Philadelphia Flower Show where he has won "Best of the Show" on several occasions. Lee is a connoisseur of choice plants and gardens. In this talk he will introduce us to the art of gardening on a small scale.

10:00 — "A Rock Scrambler's Flora" by Loraine Yeatts. A superb photographer and naturalist well known to members of Denver Botanic Gardens, Loraine will take us on a "hike" to the summit of Capitol Peak in the Elk Mountains of western Colorado. She will pause to examine flowers on the way and see what unique adaptations plants make to grow in rocky environments both in nature and the garden.

10:45 — Break

11:00 — Demonstrations and Workshops: Session I. These will be indicated in your packet and determined from your selections on the registration form.

12:00 — Optional Lunch in John C. Mitchell II Hall

1:00 p.m. — "Nature's Design: Wild Flowers in the City" by Harland Hand. Past president of the California Horticultural Society, Mr. Hand is a landscape designer specializing in naturalistic gardening in the San Francisco Bay area. His garden has been featured in eight publications including *Connoisseur*, *American Horticulturist* and *Architectural Digest*. He is noted for having re-created alpine vistas from the High Sierra in a home landscape setting.

2:00 — Walking tour of local gardens from Denver Botanic Gardens. (refer to map in registration packet)



Saturday, June 6, 1987

8:30 a.m. — Registration
9:00 — Opening remarks. Sandy Snyder, President, Rocky Mountain Chapter, ARGS

9:10 — "Alpines for Your Garden: Two Successful Approaches" by Panayoti Kelaidis. Curator of the Rock Alpine Garden at Denver Botanic Gardens, Panayoti Kelaidis will show how to design two simple rock gardens for the home garden, and some showy wild flowers to grow in them.

10:00 — "You Can Start Wild Flowers at Home" by Jim Borland. Plant Propagator at Denver Botanic Gardens, Jim Borland will show some of the basics of how to go about propagating plants in your own home—and some things you should watch for.

10:45 — Break

11:00 — Demonstrations and Workshops: Session II. These will be indicated in your packet and determined from selections on the registration form.

12:00 — Optional lunch in John C. Mitchell II Hall

1:00 p.m. — "Fifty Western Gems for Your Rock Garden" by Ted Kipping. Ted Kippings' photographs have frequently appeared on the cover of *Pacific Horticulture*, and he is well known on the West Coast as an authority on Western wild flowers, which he seeks out, photographs and grows in his intricate garden in San Francisco.

2:00 — Departure for tour of gardens by car in southeast Denver.

4:30 — Plant Sale and Exhibits Close



International Lilac Conference Slated for Denver

Lilac aficionados from as far away as Europe, the United Kingdom and Canada will converge on Denver Botanic Gardens in May for the 16th International Lilac Society Conference.

If you enjoy lilacs, you'll want to register for this conference to learn more about current research, the hardy members of the lilac family, growing conditions in local soils and pest controls. Peter Green from Kew Gardens in Surrey, England, will be the keynote speaker for this two-day program. Also included are field trips to a private lilac garden in Arvada, Denver Botanic Gardens and a collection in Boulder so old many plants are not even labeled. An optional tour goes to Rocky Mountain National Park for a close-up look at the spring wild flowers.

The lilac conference will begin Friday, May 29 at 9 a.m. at Denver Botanic Gardens. Throughout the day participants will have an opportunity to learn from Dr. Owen Rogers, Dr. James Feucht and Dr. Whitney

Cranshaw and bid in an auction of lilacs. On Saturday a bus will take participants to the Hagaman Garden as well as several other locations. The day will conclude at the Regency Hotel at 5 p.m. for cocktails. The optional tour of Rocky Mountain National Park will leave the Regency Sunday at 8 a.m.

Registration for this conference closes May 15. Contact DBG's Assistant Director Andrew Pierce, at 575-3751, for registration information. Costs for the two-day program are \$94 and the optional field trip is \$23.

Great Getaways: Gardens in Paradise

Imagine palm fronds waving overhead and the surf gently pulling at your toes which are dug into the white, warm sand. And everywhere you see luscious tropical foliage.

This is Hawaii and you can be there. "Gardens in Paradise" is a special tour arranged by Denver Botanic Gardens and Travel Associates that leaves Denver Saturday morning, October 3, and returns Sunday morning, October 11, 1987.

One of the highlights of this trip is the two-night splurge at the world's most magnificent hotel—the Mauna Kea. On the Kona coast of Hawaii, this hotel sits on a beautiful beach and has a pool, championship golf course and access to tennis courts, sailing, fishing, snorkeling, scuba diving and horseback riding. But, the true highlight of this hotel is the 500 acres of beautiful gardens that you will enjoy.

Eight days of escorted excursions, all air and ground transportation, hotels (three nights on Hawaii and four on Kauai), daily continental breakfasts, two specially arranged meals, transfers, sightseeing, hotel tips and taxes—all for only \$1,500 to \$1,700, depending on the number of participants. Non-members are welcome, too; add \$35 to the package price.

For itinerary details, contact Ginny Beale at Travel Associates, 7007 E. Hampden Avenue, Denver 80224 or call 759-8666. Send your \$200 deposit at once to Travel Associates, to hold your place. Please make your check out to Travel Associates.

Alpines Around the World Registration Form

Please return the completed preregistration form by May 27, 1987 to:

Alpines Around the World
Denver Botanic Gardens
909 York Street
Denver, CO 80206

Plant Sale and Exhibits are open to all (non-members gate fee required). Lectures and Demonstrations require registration. Make checks payable to **Denver Botanic Gardens**. No receipt will be sent. Registration packet with badge can be picked up Friday or Saturday morning at John C. Mitchell II Hall. The symposium registration fees are \$35 for both days or \$20 per day; lunches are optional and are available if reserved beforehand at a cost of \$6 each. Please indicate if you wish a vegetarian lunch with a "V" after the \$12 or \$6.

Name _____
(Print name as you want it to appear on badge.)

Address _____

City _____ State _____ Zip _____

Home Phone _____ Business Phone _____

Member of DBG? Yes _____ No _____

Additional Registrants: _____

I have enclosed \$ _____ for _____ people on the following days:

		Optional	Total
Both Days	\$35.00 per person _____, lunch: \$12.00 _____,		
Fri., June 5	20.00 per person _____, lunch: \$ 6.00 _____,		
Sat., June 6	20.00 per person _____, lunch: \$ 6.00 _____,		

As space is limited, preregistration is advised. Walk-in registrations will be accepted, however participants may not be accommodated in their first choices nor will the optional lunch be available.

Friday, June 5: Workshops and Demonstrations

Please mark your first choice (X) and an alternate (A). Additional registrants' choices can be marked with their initials and the appropriate (X) or (A).

- ☐ Back to Basics (Andrew Pierce)
- ☐ Shaping Dwarf Shrubs and Conifers (Ted Kipping)
- ☐ Wild Flower Meadow from Start to Finish (Jim Borland)
- ☐ Suburban Masterpiece (Ray Radebaugh)
- ☐ Wild Flower Walk: How We Use them at DBG (Gayle Weinstein)
- ☐ Tour of DBG's Rock Alpine Garden

Saturday, June 6: Workshops and Demonstrations

Please mark your first choice (X) and an alternate (A). Additional registrants' choices can be marked with their initials and the appropriate (X) or (A).

- ☐ Add Spice to Your Garden with Mustards (Richard and Ann Bartlett)
- ☐ Hummocks: The Rockless Rock Garden (Lee Raden)
- ☐ High Interest Plants that Pay Dividends (Bob Heapes)
- ☐ Nurseryman's Choice (Keith Funk)
- ☐ Tour of the Rock Alpine Garden



Vail Alpine Foray— June 27-28

An invigorating wild flower weekend with an overnight stop in Vail is set for Saturday and Sunday, June 27-28. Co-sponsored by Denver Botanic Gardens and the Vail Alpine Garden, the foray is timed to coincide with peak early summer bloom in the mountains.

Participants will depart early Saturday morning and will travel in small 14-passenger buses (transporters). En route to Vail, the group will stop to enjoy the outstanding floral displays of Shrine Pass, approximately 80 miles from Denver. Expect to see fields ablaze with multicolored Indian paintbrushes in countless shades of magenta, scarlet and yellow. The lush, wet mountain meadows will be carpeted with masses of globeflowers and marsh marigolds. Participants will have the special advantage of knowledgeable guides to point out some of the rarer, and perhaps more easily overlooked, of these tiny plants.

Following a picnic lunch, the group will head to Vail for a tour of the newly planted Vail Alpine Garden as well as a visit to "Colorado Alpines," the area's only nursery specializing in alpiners. Overnight accommodations are at the Manor Vail Lodge, conveniently located in the heart of Vail Village and just across the street from the Vail Alpine Garden.

An evening lecture program follows a group dinner at the lodge. Jim and Jenny Archibald will present "The Romance of Hunting Alpines." Mr. and Mrs. Archibald are from Dorset, England, and are well known as premier British seed collectors and plant explorers. Their slide program promises to be an entertaining and enjoyable finale to a full day.

After breakfast, the participants will travel to the high alpine meadows of Horseshoe Mountain in the Mosquito Range. Amid the snow-spotted high peaks, masses of wild flowers will put on a dazzling display. Wild iris, king's crown, alp lily, anemones and buttercups will be out in profusion. Expect to see the dainty, magenta alpine primrose, *Primula angustifolia* and the almost-succulent rosettes of alpine spring beauty, *Claytonia megarhiza*. Perhaps the most gorgeous of these diminutive gems, however, is the alpine forget-me-not.

Many flowering mounds of these tiny cushions in all shades of blue—from turquoise to deep, royal blue—will perfume the air. The scent alone of this special tundra flower is not to be missed!

Vail Alpine Foray Registration Form

Please return the completed preregistration form by June 15, 1987 to:

Vail Alpine Foray
Denver Botanic Gardens
909 York Street
Denver, CO 80206

Registration fee covers transportation, overnight accommodation (double room), two box lunches, dinner on Saturday, breakfast on Sunday, guides and program.

Name _____

Address _____

City _____ State _____ Zip _____

Home Phone () _____ Business Phone () _____

Member of DBG? _____ VAG? _____ No _____

Additional Registrants _____

Enclosed is \$ _____ for registration of _____ participants.

Registration: DBG and VAG members	\$140 per person, total _____
Non-members	\$160 per person, total _____
Single supplement	\$ 23 per person, total _____

Make check payable to **Denver Botanic Gardens**.

Roommate's name (if known) _____

Check here if you wish a roommate: M _____ F _____

Smoking _____ Non-smoking _____ Vegetarian _____

(We regret that no refunds may be made after June 15, unless a replacement is found.)

Enjoy a short walk and a box lunch in one of these diverse high alpine meadows (perhaps accompanied by some marmots), and head back to Denver for an approximate return time of 5 p.m.

The registration fee covers transportation, all meals (two box lunches, dinner on Saturday, and breakfast Sunday), overnight accommodation (double room), guides and fee. Members of DBG and the Vail Alpine Garden will be charged \$145; non-members pay \$160. Single rooms are available at an additional cost of \$23.

"Vail Alpine Foray" is under the guidance of Denver Botanic Gardens' Assistant Director Andrew Pierce and space is limited to 75 participants. For additional information, please contact him at 575-3751, extension 18. This trip to the high country, accompanied by wild flower experts, is an unusual opportunity to get acquainted with alpine plants as well as with others with similar interests. Don't forget your camera!



Discover the DBG Guild

Denver Botanic Gardens Guild cordially invites anyone who is interested in learning about this group to a coffee on Wednesday, May 20, from 10 a.m. to noon in the Herb Garden gazebo.

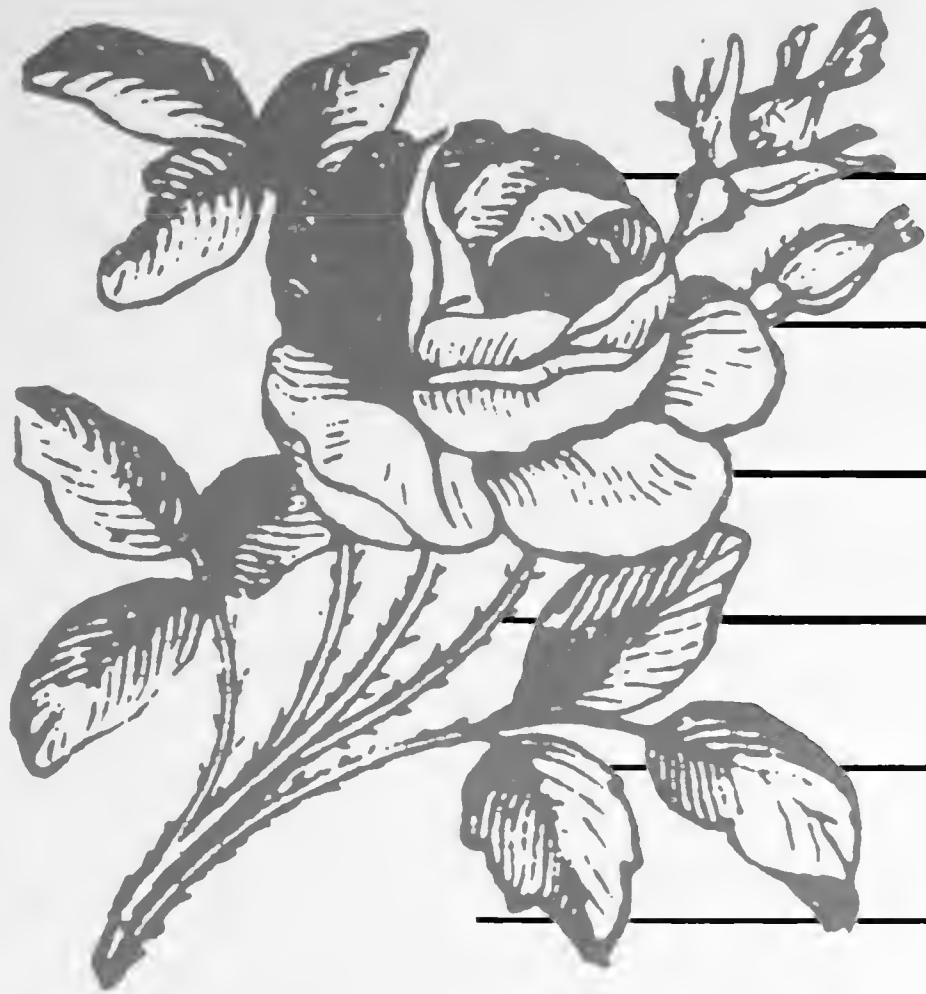
The Guild's primary function is to plant and maintain the Herb Garden within the Botanic Gardens. Meetings are held every second Wednesday of the month from 9:30 to 11:30 a.m. at the DBG House, 909 York Street. The Guild members also produce the popular herb vinegar that is sold at the Gift Sale each November.

Those interested in attending should call Judy Russell at 526-0623.


Potpourri Workshop Date Changed

Please note that the May date for Potpourri Workshop has been changed from May 15 to May 22. If you have any questions, please contact your chairman.





Highlights of the 38th Annual Plant and Used Book Sale at Denver Botanic Gardens



May 8-9, 1987

Books

Follow the veteran shoppers carrying paper bags and empty boxes and you'll probably find yourself in the Library's basement and in the middle of the book section of the annual Plant and Used Book Sale. Throughout the year books have been donated to the Library and volunteers have worked the past 12 months to provide the systematic arrangement that always prevails.

Thousands of novels, both hardback and paperback, have been alphabetized to help you with your selection. The children's collection is unusually large this year. Horticultural books are always very popular and you can anticipate a good selection if you arrive early. If you don't, a little sleuthing may uncover an exciting gardening treasure. The Library receives a large number of rare, hard-to-find books and these are shelved in a separate section of the sale area so they'll be easy to find. Many other topics will be found from science fiction to finance and unusual items like maps, records and sheet music may be located.

A new system of paying will be introduced this year that should speed you through the Used Book Sale providing you with additional time to look at plants and participate in the other festivities. Everyone will enter from the top of the stairs and leave from Classroom B where the cashiers will be located.

As in past years, on the Sunday following the sale, \$3 will get you a full shopping bag of books. Bargain hunt for books on Sunday, May 10 from 1 to 4 p.m.

Bonsai

Because these beautiful miniature trees and shrubs are becoming very popular, a greater selection than ever before will be offered this year.

Choose from trained dwarf Japanese junipers and maples, snow roses (*Serissa*) and native species of pine, spruce and juniper suitable for the do-it-yourselfer.

Free instructional material will provide the necessary directions to care for these plants. With a little regular maintenance, bonsai should last indefinitely. Imagine having a living heirloom!

Plant Donations

Many savvy Plant Sale shoppers head first to the Plant Donations area for the best selection of these choice plants.

Potted and labeled carefully by faithful DBG volunteers, these plants are "extras" from the backyards of some of the best local gardeners. Often, these donations include materials not found commercially.

Iris, violets and chrysanthemums are some of the perennials to be sold inexpensively for your garden. It's hard to predict just what surprises will be available!

Waterlilies

Discover the joys of water gardening! With an average percentage of possible sunshine of 72.5 percent for June through September, Denver is an especially good place to grow waterlilies.

Choose from an assortment of hardy waterlilies (*Castalia*) with flowers in assorted shades of red, white, pink and yellow. In addition, a wealth of bog and floating plants will be available. How about an aquatic fern, *Marsilea mutica*, also known as water four-leaf clover?

Perennials

This section will feature over 200 varieties of plants to suit sun, shade, moist or dry conditions.

Special attention should be directed to a large selection of iris this year. Winter-hardy and adapted to drier locations, there are iris for full sun and light shade. Look for bearded, Japanese and Siberian varieties.

Good drought-tolerant coneflowers in brilliant yellow, mahogany and purple will also be featured.

Coloradoans have a special fondness for columbines: You might consider our native species or the popular McKana or new Weddle hybrids for your garden.

Chat with volunteers or study resource charts for cultural tips.

Roses

The rose is our national flower. Since the dawn of civilization, it has captured the fascination of man and added beauty to its surroundings.

This year is only the second year for the full rose division, but because of the outstanding success of last year's sale (it sold out), the inventory has been expanded. Look for over 100 varieties of standard roses, 13 selections of live, potted plants and, as a small, inexpensive starter plant, the *Rosa rugosa* 'Rubra,' in dormant wrap. All of these varieties have proven suitable for our Colorado climate.

Trees and Shrubs

The Tree and Shrub division has a wide variety of container-grown plants, evergreen and deciduous shrubs and some old favorites with a new twist such as dwarf lilacs and forsythia. New introductions hardy enough to tolerate our climate include rhododendrons and azaleas. The juniper selection is expanded as is the selection of drought-tolerant and low water demand plants.

Master gardeners, local nurserymen, contractors and other experts will be on hand to give information and recommendations on care, location and planting.

House Plants

From the struggling foliage plant beginner to the hard-to-please orchid enthusiast, there is certain to be something to delight everyone in this area. Choose from more plants in a wider assortment than ever before.

Because of the poor light conditions in many homes, there will be many that will perform well in your dark corners. And for those of you with better lighting, flowering plants are appropriate.

Discover the world of bromeliads, also known as air plants, and a hanging basket or a terrarium would make an ideal Mother's Day gift.

Annuals

From ageratum to zinnias, annuals provide a colorful display all summer long. Shoppers at the sale can choose from over 50 varieties to suit every nook and cranny.

All of the old-fashioned favorites such as portulaca, snapdragons and marigolds will be back as well as some harder-to-find selections. New offerings include the graceful Icelandic poppies, baby's breath (you can dry its flowers for winter arrangements) and sanvitalia, a cheery member of the daisy family.

There's even a sun-tolerant impatiens that won't wilt in the heat and spreads freely.

Cacti

This division will have plants in many different sizes available for the beginner, advanced amateur and serious collector. Succulent plants from the world over will be featured including the popular South African mimicry plants such as living stones (*Lithops*) and split rocks (*Pleiospilos*).

Those who are interested in low maintenance "xeriscape" gardening may choose from the popular winter-hardy cacti and succulents such as beaver tails and ice plants.

Many old friends (such as "jades"), less familiar friends and downright weird plants will be available.

If you are searching for plants that are easy to care for and do not need a babysitter while you vacation, cacti and succulents are for you. Knowledgeable volunteers will answer your questions as you select from the hundreds of species available.

Patio

There will be a wide assortment of plants for the patio area, with more hanging baskets than ever before. You'll find lilies-of-the-valley (a perfect "I love you" gift for mom), an assortment of unusual scented geraniums with such names as Crocodile, Red Heart, Tulip Flowers and planted Italian clay pots in all sizes and shapes.

There are hibiscus and bougainvillea, which make wonderful accents for your patio all summer. You'll find garden art in the form of flower-shaped windsocks to blow in the breezes and small concrete statuary (rabbits, ducks and more) to add additional color and a touch of whimsy.

Berry Basket

The Berry Basket division continues to offer the widest selection of fruits and berries in Colorado, from Fort Laramie strawberries to varieties of European raspberries and gooseberries and three types of currants. The favorite seed of Colorado birds is available in convenient, large bags and bird feeders will also be stocked.

New for 1987 is the hardy kiwi. Capable of withstanding temperatures to minus 25 degrees, these fruits have a smooth skin and are sweeter and smaller than their fuzzy cousins found in grocery stores. Both a male and female plant are needed for fertilization.

Children's Booth

The children's section is designed to be a comfortable, convenient place for children to shop in a special, relaxed area. Little folk cross under the arch to the potting wagon to "pot up" plants of their own or to buy special items, such as panda trees, horn cacti, Venus fly traps or lollipop gaillardias. There are perfect Mother's Day gifts here, such as baskets full of herbs, edible flowers or wall pockets planted with lotus vine, morning glory and impatiens.

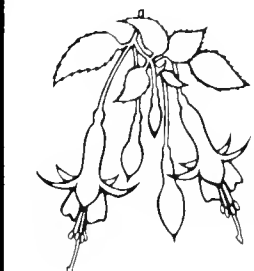
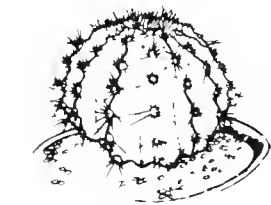
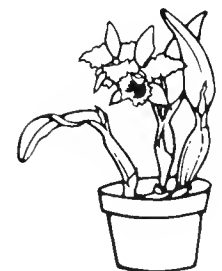
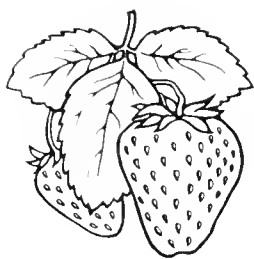
Find out which plants attract butterflies so they'll enhance your garden; make wreaths with dried flowers or buy "baby vegetables" planted in a collection.

Rock Alpines

The Rock Alpine booth will be located just east of the Rock Alpine Garden. Customers will be encouraged to walk through the garden where volunteers will explain its design and plantings. Get a sense of how these little treasures will mature before you purchase them.

All of the plant material offered is growing or has grown in the Rock Alpine Garden. It will be displayed according to cultural requirements and labels will provide pictures.

An informative booklet will be for sale to help buyers remember how to care for their purchases.





Talking over the annual Plant and Used Book Sale are (from left to right): Debbie Tillema, designer, Howard Lorton Galleries; Bill Cook, president, Howard Lorton Galleries; Jeanne Ruggles, chairman, 1987 Plant and Used Book Sale; Sale Volunteer Rob Proctor; Nancy Carmichael, co-chairman, 1987 Plant and Used Book Sale; and Lee Rose, designer, Howard Lorton Galleries.

Herbs

Without a doubt, this is the most extensive selection of herbs to be found in our area. Many of these tasty and aromatic plants are locally grown and prices are competitive.

For the gardener who cooks, choose from annual and perennial culinary herbs. Nothing can compare with their freshly harvested flavor! Oregano, marjoram, thyme, sage, chives and tarragon will all enliven your cooking.

Choose from six varieties of basil: Besides the well-known sweet basil there will be cinnamon, licorice, piccolo, opal and purple ruffled.

Herbal tea fanciers will want to try some of the more unusual mints such as lemon and pineapple as well as the more familiar chamomile.

The popular four-herb variety packs will be sold for small starts of favorite plants and a hanging basket of herbs would make a most welcome housewarming present.

On hand will be more of the savory DBG Guild herbal vinegars as well as prepackaged herb mixtures complete with recipes.

DBG Guild members will answer questions and a culinary herb chart will be sold for future reference.

Lilies and Gladiolus

The hardy lilies are reliable garden plants that perform well in Colorado. Not to be confused with daylilies or calla lilies, true lilies have long been known for their incredible beauty. Hybrid Asiatic lilies will be offered in a rainbow of colors, others are bicolored, some are spotted. These vigorous hybrids grow two to four feet high.

Asiatic hybrid lilies are a product of many years of experimenting and are derived from species native to mainland Asia and the mountains of Europe. The familiar tiger lily is an ancestor of some of the modern varieties, and is largely untouched by pests and disease.

The lilies offered at the Plant Sale will be at home in flower beds or shrub borders, they grow well in large tubs and patio containers and make excellent cut flowers. Flowers are produced in June or July.

The pots of lilies already in bloom will enhance a sunny window or patio, then can be planted in the garden where they will eventually form vigorous clumps.

The bulbs can be planted at once for summer flowers. Knowledgeable gardeners will be at the lily booth to assist in the care of your purchases. Cultural instructions are available from the North American Lily Society.

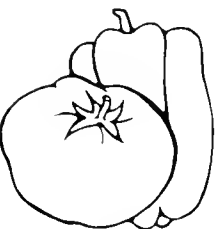
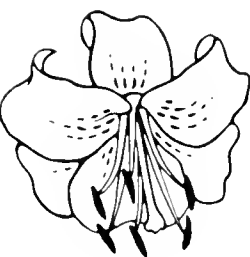
Vegetables

The vegetable booth will stock the tried and true varieties that are known to adapt well to our climate and do well in the home garden. Selections are space-savers (bush rather than vining types), early maturing, prolific producers, disease resistant and, of course, delicious.

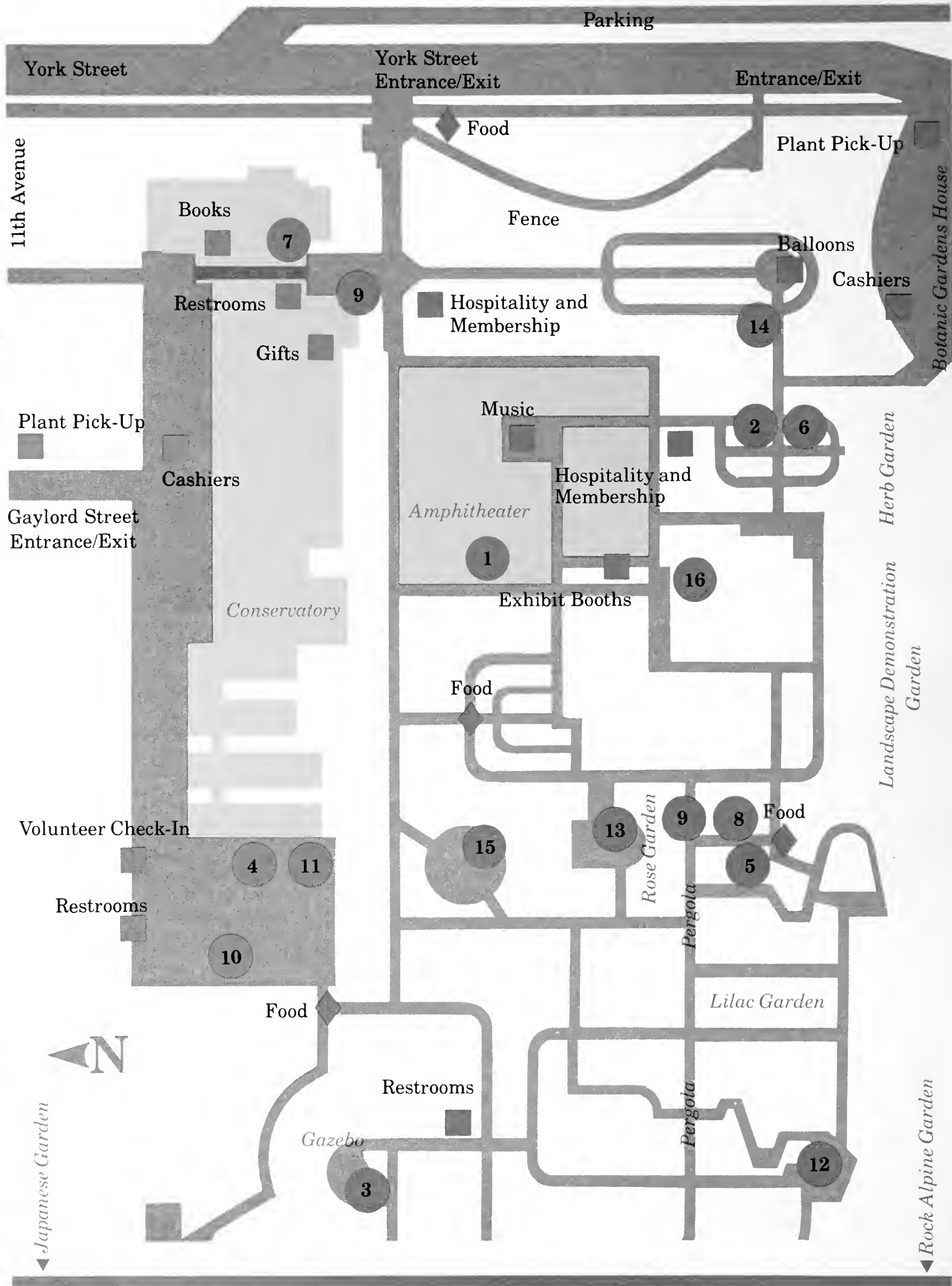
There will also be the more exotic, "designer" vegetables for sale. You may have tried green or red bell peppers, but how about the chocolate or purple peppers; the Easter eggplant, Carmen red onions or self-blanching celery?

Unusual lettuces such as mache (with a rosette of dark green leaves and a flowery flavor), Tom Thumb (a miniature butterhead served whole), Babylon (a red, butterhead type), Canasta (bright green, crispy leaves) and King Crown (a flavorful iceberg) are all available, along with six choices of squash, pumpkins and watermelon.

Chinese cabbage and pakchoi are for the stir-fry cooks and tomatillos for Mexican food enthusiasts. A special tomato, Gem State, is a compact bush for minigardens and containers. Also look for globe artichokes, which are good raw or cooked.



Extra copies of this pull-out section provided during the sale are made possible by Howard Lorton Galleries. Be sure to stop by their patio exhibit during the annual Plant and Used Book Sale.



Plant Divisions (Booths)

- 1 Annuals
- 2 Berry Basket
- 3 Bonsai
- 4 Cacti

- 5 Children
- 6 Herbs
- 7 House Plants
- 8 Lilies and Gladiolus
- 9 Patio Plants
- 10 Perennials

- 11 Plant Donations
- 12 Rock Alpine
- 13 Roses
- 14 Trees and Shrubs
- 15 Vegetables
- 16 Waterlilies

CLASSES

Spring
1987
Denver Botanic Gardens



Alpine Amble

(one session)

Section I: Thursday, April 30

**Section II: Thursday, May 14
10 to 11 a.m. DBG's Alpine House**

Please indicate your section on the registration form.

Join our alpine garden experts on a walk that will highlight some of the special little plants you might otherwise miss in our collection.

Participants on the mid-May amble can expect to see a profusion of color as many choice groups of alpines will be flowering. Anticipate dwarf brooms, alyssums, delicate androsaces and many rare species of dwarf iris.

Instructors: DBG staff members Panayoti Kelaidis and Sandy Snyder are responsible for the Rock Alpine Garden and take special pleasure in sharing it with others.

Fee: \$4 members/\$4.50 non-members

Limit: 20

Herbs for Flavor

(four sessions)

**Wednesdays, May 20, 27, June 3, 10
7 to 8:30 p.m. Classroom B**

The attractive forms, colors and textures of the culinary herbs make them ideal garden plants and nothing can compare with their freshly harvested flavor.

Learn to plan an herb garden as well as the propagation, cultivation and harvesting of the major cooking herbs. Discover how to utilize them to add zest and variety to your cooking.

Instructor: An avid herb gardener, Pat Pachuta is DBG's education director.

Fee: \$28 members/\$31 non-members (includes \$4 for materials)



Oasis Denver: A Patch of Green on the Semiarid Plain

(four sessions)

Mondays, June 15, 22, 29, July 6

6:30 to 9:30 p.m. Mitchell Hall

Join leading experts in the fields of horticulture and landscape architecture and learn more about Denver's exotic growing environment in this joint class developed by DBG and New College at the University of Denver.

Denver attorney and popular lecturer Don Etter will open the series with his program, "Water and the Denver Garden System." Mr. Etter has been actively involved in many Denver projects relating to open space, street trees and landscape planning including Historic Denver Inc. and Denver Urban Forest. He will examine the importance of water and its effects on the development of this area as well as how gardens and other environments elsewhere have influenced and shaped our Denver landscapes.

How these factors plus other relevant considerations have specifically affected the design of Denver gardens will be covered in the second session. In "Denver Gardens—Differences by Design," well-known local landscape architect Jane Silverstein Ries and her associate Cathe Mitchell will discuss differing periods and styles of both large and small gardens. Using familiar Denver gardens as examples, they will explain some of the ever-changing fashions in the plant material around us.

Learn the specifics of appropriate plants for Denver when DBG Botanist Horticulturist Gayle Weinstein presents "Toward a Regional Horticulture" on Monday, June 29. The designer of our Xeriscape Garden, Ms. Weinstein has done much to advocate the use of appropriate native plants in our landscapes. Her program will cover how to use these plants to create the special effects we seek.

Finally, architect Robert Root and landscape architect William Wenk will address, "What are the Choices?" on Monday, July 6. Their program will focus on public and private options for the future. Explore how settlement patterns affect our environment, low-tech solutions to water conservation, what is being done (and what ought to be done) about planning in Denver.

Fee: \$48 members/\$53 non-members. Students wishing to take this class for one or two quarter hours of graduate credit must register through New College at University of Denver; call 871-2291 for additional information. Tuition will be \$130 per credit hour.

Gardening For Results

Tuesdays from 7 to 9 p.m.

Morrison Center at 2320 East 11th Avenue. Please indicate your program titles if you are not attending the entire series.

Professional horticulturists will present the background and techniques needed to achieve bountiful and beautiful gardens in this series of programs. Attend them all or choose those that suit your particular needs.

Tuesday, May 12 All About Tomatoes

Everything you need to know to grow America's favorite garden vegetable will be presented. Topics include determinate and indeterminate varieties, planting, pruning, fertilizing and problems such as aphids, whiteflies, sunscald and blossom end rot.

Tuesday, May 26 Botany for Gardeners

Knowing basic floral structure and plant parts will help you understand proper horticultural practices. Take the mystery out of wilting, bolting, sunscald and deep watering.

Tuesday, June 2 Composting

Learn how to take leaves, grass clippings, small prunings and other refuse and pile them in such a way that the soil bacteria can thrive and break them down into a usable form to enrich your garden soils.

Instructors: Jim Borland, Lynn Thompson, Pat Pachuta and Gayle Weinstein are all horticulturists on the DBG staff and John Brett is the former coordinator of our Community Gardening Program.

Fee: Each program is \$8

Botany for Beginners (four sessions)

**Wednesdays, May 20, 27
June 3, 10**

9:30 to 11:30 a.m. Classroom B

This is a course for those who have no background in botany but wish to know more about plant parts and what they do. This is fundamental if you wish to know how to identify plants; it will also help you appreciate what plants require.

Some microscope work as well as greenhouse tours are included.

Instructor: Moras L. Shubert, Ph.D., is Professor Emeritus of Botany at the University of Denver and has over 30 years of teaching experience.

Fee: \$32 members/\$35 non-members

Limit: 15

Intensive Vegetable Gardening Workshop

(one session) 10 a.m. to 2:30 p.m.

Section II: Saturday, May 23

DBG's Morrison Center at 2320 East 11th Avenue, Denver

Please indicate your section on the registration form.

Grow more vegetables in a smaller space and use less energy doing it. This workshop will cover garden design, variety selection, maintenance, specific culture of common vegetables and potential problems with pests and diseases.

A hands-on session outdoors will provide actual experience in intensive gardening methods such as double digging, soil preparation and planting techniques such as wide row spacing and intercropping.

Please dress appropriately in work clothes and practical shoes and don't forget your lunch.

Instructor: Lynn Thompson

Fee: \$16 members/\$17.50 non-members

Limit: 12



Beginning Bonsai

(three sessions)

9:30 a.m. to noon Classroom B

Section I: Tuesdays, June 9, 16, 23

Section II: Saturdays, July 11, 18, 25

Please indicate your section on the registration form.

This introductory course will cover the historical and cultural techniques of bonsai, the art of creating dwarf trees and shrubs. Instruction on styling, training, potting and general care of bonsai will be included.

Each student will take a completed bonsai home and all materials will be provided.

Instructor: Keith Jeppson, past president of the Rocky Mountain Bonsai Society, is an experienced bonsai hobbyist of 15 years. Harold Sasaki is a commercial bonsai grower and an experienced bonsai hobbyist of 17 years. Both are capable and lively instructors.

Fee: \$50 members/\$55 non-members (includes a \$20 materials fee)

Limit: 15

Wild Flowers of the Plains Field Trip

(one session) 10 a.m. to 3 p.m.

Section I: Wednesday, May 13

Section II: Saturday, May 16

Please indicate your section on the registration form.

This spring field trip on the edge of the plains in Plainview is an opportunity to see the plains' spring flora in its full glory. See the Rocky Mountain iris, early composites, monument plant, vetches, Colorado loco, pasqueflower and many others.

Don't forget to bring your lunch and drinking water; if you have wildflower field guides or a hand lens, they would also be useful.

Meet: Promptly at 10 a.m. at the junction of highways 93 and 72 in the parking lot on the southeast side of the intersection. Call the Education department if you need directions.

Instructor: Paul Kilburn, Ph.D., taught botany at Principia College, Illinois, as well as summer flora and ecology classes for the University of Colorado. He has spent several summers doing tundra research at the Institute of Arctic and Alpine Research, University of Colorado at Nederland.

Fee: \$5 members/\$5.50 non-members

Plant Life Field Trip: Mesa Nature Trail, Boulder

**Wednesday, May 20
9 a.m. to 2 p.m.**

The section of the Mesa Nature Trail near the National Center for Atmospheric Research (NCAR) is of particular ecological interest. Visit this transition from grasslands to foothills and observe the profusion of plant and animal life found there.

Expect to see wallflowers, larkspurs, violets, pasqueflowers, puccoon and sand lilies.

Don't forget your lunch and drinking water.

Leader: Mary Edwards is an enthusiastic botanist who leads many botanical field trips and volunteers at the Kathryn Kalmbach Herbarium at DBG.

Meet: at 9 a.m. in the main DBG parking lot to carpool and receive directions.

Fee: \$2.50 members/\$3 non-members

Limit: 20



Wild Flower Field Trip at Golden Gate State Park

Saturday, May 23 10 a.m. to 3 p.m.

Discover the flora and ecology of the lower montane zone at Golden Gate State Park. This is an easy walk through ponderosa pine woodlands, aspen groves, willow wetlands and Douglas fir forests in this large and diverse state park.

Plants to be seen include the major tree species, shrubs (especially *Jamesia*), and numerous spring wild flowers including wallflower, bearberry, penstemons and golden banner.

Bring a lunch and a hand lens and plant identification books if you have them.

Instructor: Paul Kilburn, Ph.D., taught botany at Principia College, Illinois, as well as summer flora and ecology classes for the University of Colorado. He has spent several summers doing tundra research at the Institute of Arctic and Alpine Research, University of Colorado at Nederland.

Meet: promptly at 10 a.m. at the Golden Gate State Park turnoff just north of Golden on Highway 93. Please note there is a \$3 fee for each vehicle entering the park.

Fee: \$5 members/\$5.50 non-members

Field Practice in Flower Identification

Saturday, June 13 Noon to 3 p.m.

This is a class for those who have already had a basic plant identification course or who have some experience using botanical keys to determine plant species found in the field. Practice these skills under the supervision of an expert.

Please bring a copy of Weber's *Rocky Mountain Flora* and/or Nelson's *Flowers of the Rocky Mountains* and a good hand lens (10X to 15X) plus any simple dissecting tools, such as a razor blade and needle, that you might have.

Instructor: Moras Shubert, Ph.D.

Meet: promptly at noon at the parking lot in Red Rocks Park where the geological map is. (Call the Education department if you have questions.) Please note there is a \$3 fee for each vehicle entering the park. Class will meet until 3 p.m.

Fee: \$5 members/\$5.50 non-members

Limit: 18

Wild Flower Foray to Means Meadow, Evergreen

Saturday, June 13 10 a.m. to 3 p.m.

Learn about the wild flowers and ecology of the montane zone. This is an easy hike through ponderosa pine woodlands and Douglas fir communities with their associated shrubs (bearberry, blueberry, currant) and many flowers, including our Colorado columbine, will be blooming.

Bring a lunch and a hand lens and plant identification books if you have them.

Instructor: Paul Kilburn, Ph.D.

Meet: promptly at 10 a.m. at the northeast parking lot at Rock Cut (I-70 and Highway 93).

Fee: \$5 members/\$5.50 non-members

From Buntings to Warblers at Chatfield Arboretum

(two sessions)

Wednesday, June 3 from 6:30 to 9:30 p.m. in Classroom C

Saturday field trip at Chatfield Arboretum from 8 a.m. to 3 p.m.

Although this class is especially for beginners, any level of expertise is welcome. In the introductory slide lecture, students will learn which field marks and characteristics to look for to identify birds. Plants associated with particular birds for food, cover and nesting will also be included.

Feeding, courtship and migration patterns of birds of the upper plains to lower foothills will be covered. Visit Chatfield Arboretum, Chatfield Reservoir and a foothills site nearby.

Please bring whatever bird field guide you have to the first class; *Field Guide to the Birds of North America*, a National Geographic Society publication, is recommended.

Meet: promptly at 8 a.m. at the entrance gate of Chatfield Arboretum. The Arboretum is located less than 1/2 mile to the west on Deer Creek Road just off Highway 75 (County Line Road). Don't forget your lunch and binoculars. Please note there is a \$3 per car admission fee to Chatfield Reservoir.

Instructor: Tina Jones is a naturalist who has birded throughout the United States learning plant/bird associations. She is a current board member of the Colorado Field Ornithologists.

Fee: \$15 members/\$16.50 non-members

Field Trip to Roxborough State Park

Saturday, June 20

9 a.m. to noon

Learn late spring and early summer wild flower identification at this spectacular park. An easy trail winds through striking geologic formations where a wide variety of habitats including sunny open hillsides, hogback ridges and a moist stream valley will be explored.

Please come prepared and bring drinking water, a snack, sensible waterproof walking shoes, and a jacket.

Leader: Peter Root is an amateur botanist who volunteers regularly at the Kathryn Kalmbach Herbarium at DBG; he is also a volunteer naturalist at Roxborough State Park.

Meet: at 9 a.m. at the Visitor Center inside Roxborough State Park. Each car entering the park must purchase a daily user pass of \$3 in addition to the field trip fee. Roxborough State Park is located at Roxborough and Rampart Roads.

Fee: \$2.50 members/\$3 non-members

Limit: 20



Drawing from Nature

(five sessions)

Thursdays, May 28, June 4, 11, 18, 25

9:30 a.m. to noon Classroom A

Discover the pleasures of sketching at the Gardens in spring. Instruction will cover basic drawing techniques and materials with an emphasis on tapping the unique creative vision of each participant.

No previous experience is necessary and materials can include drawing pencils, charcoal, colored pencils, pen and ink, and pastels. Please bring drawing pencils and paper no smaller than 8 1/2 by 11 inches to class.

Instructor: Lynette Swanson-O'Kane is a graduate of the Philadelphia College of Art and is a professional artist with national representation of her work.

Fee: \$50 members/\$55 non-members

Limit: 12



Feasting on Edible Wild Plants

(two sessions) Classroom B
Monday, June 1 from 6 to 9 p.m.
Sunday, June 7 from 9 a.m. to 3:30 p.m.

Have you ever tasted tempura milkweed or yucca flowers? How about baked roots of cattail? Learn about some of the common wild edible plants of Colorado and actually cook and sample them.

In the first session, students will learn how to identify both edible and poisonous plants in the classroom and the field. Participants will cook and feast on these wild treats in the morning of the second meeting before a short field trip in the afternoon.

Come to the first class prepared for wet feet (preferably with an old pair of sneakers). Bring an appetite for the morning tasting session of the second class along with a snack for a late lunch.

Instructor: Tina Jones

Fee: \$15 members/\$16.50 non-members



Yucca baccata

Japanese Tea Ceremony

Section I: Sunday, April 19
Section II: Saturday, April 25
Section III: Sunday, May 17
Section IV: Saturday, May 30

(one session) 2 to 3 p.m.
Tea House in DBG's Japanese Garden

Please indicate your section on the registration form.

Because of its emphasis on such concepts as harmony, respect, purity, tranquility and elegant simplicity, the tea ceremony has for centuries been considered the epitome of Japanese life. This is an opportunity to experience an authentic tea ceremony in the quiet splendor of our Japanese Garden.

Instructor: Kathryn Kawakami has done much to inform Denver area residents and students about the culture of Japan. She will be assisted by William Crowder who studied the Tea Ceremony in Japan at Ura Senke.

Fee: \$4.50 members/\$5 non-members

Calligraphy—The Italic Hand

(six sessions) Classroom B
Section I: Tuesdays, June 23, 30,
July 7, 14, 21, 28
1:30 to 3:30 p.m.
Section II: Wednesdays, June 24,
July 1, 8, 15, 22, 29
7 to 9 p.m.

Please indicate your section on the registration form.

This introductory course in the italic hand is designed for the beginner and experienced student who wants to expand their skills or brush up on the italic hand. Emphasis will be on learning the basic letter structure of the italic alphabet. Design, color and history of the alphabet are included.

Instructor: Alicia McKim studied art at Western State College and is a freelance calligrapher whose work is exhibited widely.

Fee: \$48 members/\$53 non-members

Horticultural Therapy Educational Program

Horticultural therapy is an adjunctive therapy using plants and plant-related activities to modify or facilitate change in people.

For additional information about the horticultural therapy program at DBG's Morrison Horticultural Demonstration Center (located at 2320 East 11th Avenue, Denver) and its educational program, please contact Lynn Thompson at 575-3751, extension 43.

Horticultural Techniques for Therapy Programs

Tuesdays, May 5, 19, June 2, 16, 30
9:30 to 11:30 a.m.
Morrison Center

A well-rounded skills base in horticulture is the foundation of a sound horticultural therapy program. This course offers the opportunity to become more knowledgeable and self-assured with a variety of plant materials and gardening activities.

Tuesday, May 5
Herbs: Culture, Design, How to Start Plants

Tuesday, May 19
Simple Outdoor Landscaping: Design, Seasonal Program Materials

Tuesday, June 2
Interior Plantscaping: Design and Tried-and-True Plants

Tuesday, June 16
Greenhouse Management: Design and Construction

Tuesday, June 30
Greenhouse Management: Production and Maintenance

Instructor: Lynn Thompson

Fee: Each program is \$9 for members or \$10 for non-members. Please be sure to include the dates of the programs you've selected on the registration form.

Denver Botanic Gardens
909 York Street
Denver, Colorado 80206

Fees for courses should be paid in advance by check or money order made out to Denver Botanic Gardens. Since the space is limited in many courses, registration should be mailed in promptly. Your registration will NOT be acknowledged. Your name will be placed on the class list the day your money is received. No enrollments for class by phone please. All courses given are subject to a minimum enrollment of ten students. For further information, please call 575-3751.

Registration Form for Classes and Field Trips

The enclosed check, in the amount of _____, is to cover the registration fees for the following classes:

Name and section of classes _____

Name _____

Address _____

City _____ State _____ Zip _____

Home Tel. No. _____ Business Tel. No. _____

Member of Denver Botanic Gardens? ☐ Yes ☐ No

Gardening Tips for May by the Drs. Green

This Month

"Let all thy joys be as the month of May," urged a now obscure 15th century English poet. However, a Colorado gardener of today may be forgiven for answering, "Yes, but please, not my labors!" May is a busy month. It demands such increased activity in the home garden that it often seems impossible to get every urgent task done before the daylight-saving sun finally sets on Memorial Day weekend.

During this hectic, if not harrying, season the following projects should be attended to:

Prune those early spring flowering shrubs. The major cause of poor performance of forsythias, flowering quinces, lilacs and other spring shrubs is late pruning. These plants will soon form flower buds during this year's growing season for next year's display. Attacking these plants with your pruners later this summer, this winter or next spring will only deprive them and you of their 1988 flowers.

Be alert for the first signs of pine tip moths, the larvae of which distort and destroy new growth on several species of pines grown in our area. Light infestations, especially on smaller, younger trees may be controlled by pruning off the infected tips. This pruning may actually help produce a bushier, shapelier tree, if in the long run, subsequent early summer growth is allowed to develop. However, pines that are repeatedly infested become stunted and can eventually succumb. Owners of larger trees will have to resort to spraying and should keep in touch with their local county extension agent for reports on the seasonal progress of this pest in order to time spray application for optimum results.

Finish planting annual flowers and vegetables. By midmonth, as temperatures warm toward summer, nearly all first crop vegetables can be set out. However, keep an eye on weather reports and be prepared to protect tomatoes, peppers, winter squashes and cucumbers from our notoriously cold late spring storms.

Also, resolve now to lessen your May chores next year by setting out in April those cold-tolerant plants such as broccoli, cauliflower, pansies and snapdragons. Clever planning will help distribute your many spring planting demands. Delay until the latter part of the month, or even until June if you wish, direct seeding of corn, beans and summer squashes. Warmer soil temperatures at that



time will help them quickly catch up to earlier planted seedlings.

If you've admired the naturally attractive Plains Garden here at the Gardens and are creating a similarly beautiful, water-saving landscape of your own, early May is the time to seed buffalo grass, blue gramma and other warm season grasses which provide the special mellow, year-round attractiveness of a plains scene. Shrubs, bulbs and other focal plants may be plugged in later in the year, or even next spring, after the grasses are well established and when May's busy hours are but a joyful memory.

Q After my tulips have finished blooming, when may I cut back the foliage? I want to plant that bed in annuals, but the tulip leaves are in the way and they'll soon be unsightly.

A Unless you're an incurable neatnik (and very few gardeners are, thank goodness!) resist that temptation to remove those leaves until they are well on their way to dying back naturally. Until they reach this stage, signaled by yellowing, then withering, the leaves are essential for the manufacture of the storable energy your tulips will need to bloom well again next season. This advice obviously applies as well to other garden bulbs, whatever their blooming season.

To avoid your annual dilemma, you need to redesign and replant this

area. Place the tulips toward the back where their aging foliage will not be so troublesome and try planting some very early bulbs toward the front of the bed, which should disappear in time for your late spring annuals. Though all are not true bulbs, how about anemones, crocus, or either *Iris histrioides* in their shades of blue or *Iris danfordiae*, in brilliant yellow?

Q My mother-in-law is an avid windowsill gardener, so every year for Mother's Day I've given her a blooming plant. This year, the tenth of our friendship, I want to surprise her with something special. Help! I need ideas.

A An orchid is the perfect answer for you. Even if she's received one in the past, there are so many different kinds of orchids suitable for growing under so many household conditions that you're sure to find one for this special occasion. Orchid plants, as well as many other unusual growing gifts, will be available at Denver Botanic Gardens' annual Plant and Used Book Sale May 8 and 9. May we encourage you to visit us then for your selection?

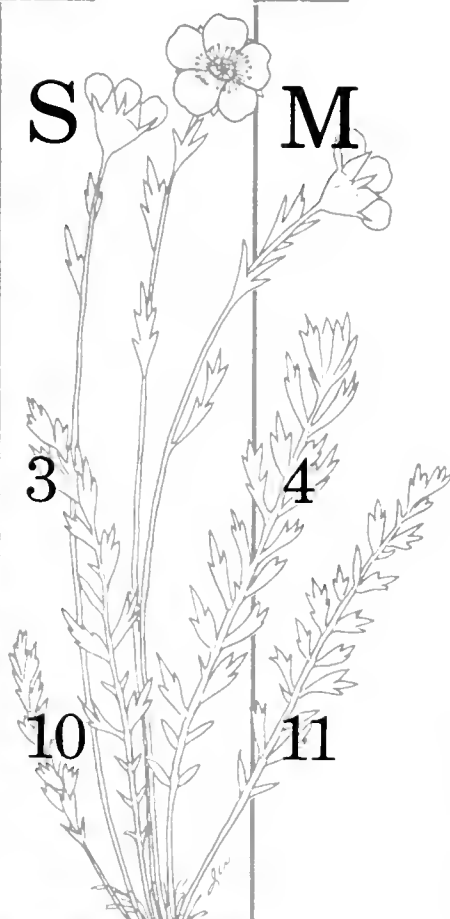

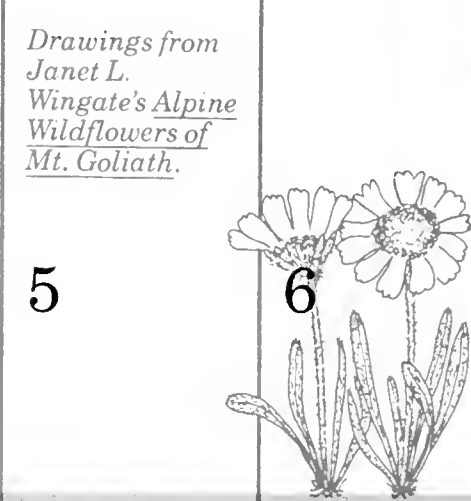

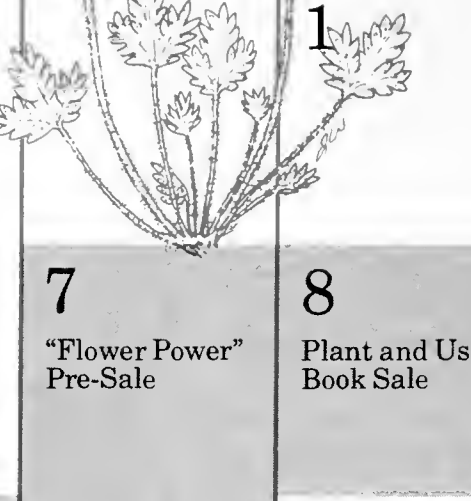
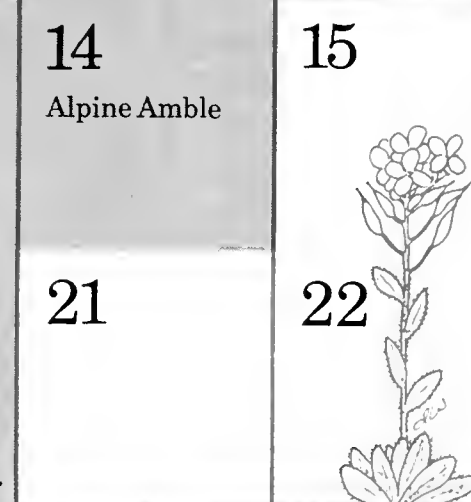
The Drs. Green welcome your comments and questions for possible inclusion in this column. Please contact them by writing: Drs. Green, Denver Botanic Gardens, 909 York Street, Denver, CO 80206.

C MAY

Regular Meetings of Plant Societies

A number of plant and horticultural groups meet fairly regularly at the Denver Botanic Gardens. Here is a listing of those groups and a general indication of when they usually meet. For more specific meeting times and locations as well as for information on how to contact a representative of the group, please call the Botanic Gardens switchboard during business hours at 575-3751.

African Violet Society, 4th Thurs. of 7 months; *Bonsai Society*, 1st & 3rd Tues.; *Cactus & Succulent Society*, 2nd Tues.; *Civic Garden Club*, 1st Fri.; *Colorado Native Plant Society*, 4th Wed.; *Gloxinia Gesneriad Growers*, 1st Sat.; *Hemerocallis Society*, 3rd Sun. of 4 months; *Ikebana International*, 4th Fri.; *Iris Society*, spring & fall dates; *Men's Garden Club*, 4th Thurs.; *Mycological Society*, 2nd Mon.; *Orchid Society*, 1st Tues.; *Rock Garden Society*, 3rd Wed.; *Rose Society*, 2nd Thurs.; *Ultra Violet Club*, 4th Mon.; *Water Garden Society*, 2nd Sun. of 5 months

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1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30
31	Coming Next Month	June 5-6 Alpines Around the World	June 15 "Oasis Denver: A Patch of Green on the Semiarid Plain"	June 20 Gloxinia Gesneriad Show and Sale	June 25 Boulder Bassoon Band
		June 13-14 Rocky Mountain Bonsai Show		June 30 Young Audiences Concert	

Denver Botanic Gardens, Inc.
909 York Street
Denver, Colorado 80206
303-575-3751

May 1987

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Green

Thumb

Denver Botanic Gardens

July 1987

Number 87-7



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Independence Day Weekend Events at DBG

Stay in Denver this Fourth of July weekend and visit Denver Botanic Gardens. On Saturday, July 4, from 10 a.m. to 3 p.m., the Iris Society will have a sale of freshly dug rhizomes. It will be located just inside the Gardens' entrance, immediately to the right.

From Thursday, July 2 through Sunday, July 5, members of the Colorado Watercolor Society will hold their annual exhibit of watercolors. All of the paintings are for sale and matted, framed and unframed watercolors will be available in prices for every budget. The show will be open from 9 a.m. to 4:45 p.m. Friday and from 9 a.m. until dusk Saturday and Sunday.

Extended evening hours apply both Saturday and Sunday when the Gardens opens at 9 a.m. and closes at dusk. There is no fee to enter either of these sales other than the non-member gate admission fee. Enjoy this special summer weekend at the Gardens with your family.

1987 Terrace and Garden Tour Saturday, July 25

Within a short distance from Denver Botanic Gardens exists a small urban neighborhood that contains numerous unique gardens. The 1987 Terrace and Garden tour offers an enjoyable opportunity to visit some of these gardens and perhaps even take a few ideas home.

On Saturday, July 25, from 9 a.m. to 5 p.m., seven gardens will be presented by the DBG Guild and proceeds will benefit DBG. Tickets
continued on page 3



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Green Thumb
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From the President of the Board of Trustees: The Metropolitan Cultural Tax Bill

This past winter the Botanic Gardens, along with the Art Museum, Natural History Museum and Zoo, initiated legislation that would provide for a more stable financial basis. Representative Pat Green introduced H.B. 1138 which would set up a Metropolitan Tax District paralleling the RTD District. Within this district a one mill sales tax, or one penny per \$10 of sales, would be distributed to various named recipients. Such a small tax would generate between 12.5 to 13 million dollars the first year.

This bill passed through the House with 22 amendments and through the Senate with only one amendment with Senator Fenlon ably assisting the passage of the bill. Governor Romer has now signed the bill which will be submitted to voters within the six county district in the General Election of 1988.

When this concept was first proposed, many were skeptical that we would get the bill passed. With that accomplishment behind us, we, who are members and supporters of Denver Botanic Gardens and the other organizations who will benefit from this legislation, will need to lobby for it. We must campaign convincingly to inform the voters of the necessity of such a sales tax and the benefits that will accrue to them if it is approved. This has not been easy in recent elections and the electorate must be

well informed if they are to support this tax.

The first tier of cultural organizations will receive 65 percent of the income from this tax with the Natural History Museum receiving 33 percent, the Art Museum and the Zoo receiving 26 percent each and the Gardens receiving 15 percent. This would net Denver Botanic Gardens a stable 1.25 million dollars per year in operating funds.

A second tier consisting of the Denver Symphony, DCPA, Opera Colorado, Central City Opera, the Arvada Center, the Children's Museum and the Colorado Ballet would receive a total of 25 percent of the funds to be divided among them.

A third tier would receive 10 percent of the funds to be distributed to worthy cultural organization applicants in the six counties on a proportioned population basis. A governing board of nine members would allocate these funds.

I ask all of you as members of Denver Botanic Gardens to actively participate in promoting the importance of this tax when the time comes to campaign for voter approval. In the meantime, I would appreciate hearing from you if you are aware of groups or individuals who might oppose such a worthy tax.

We at the Gardens can be proud that we have facilities of value outside the County of Denver. Adjacent to the Chatfield Reservoir is our Chatfield Arboretum project. The Walter S. Reed property in Upper Bear Creek Canyon and the Mount Goliath Alpine Study Unit near Mount Evans are both

important field study sites managed by the Gardens.

Thus, we extend far beyond Denver's city limits. At least 40 percent of the Colorado visitors to the Gardens and other cultural facilities come from the metropolitan Denver area while only 20 percent of the visitors come from the City and County of Denver.

In order to have more viable cultural institutions which are so good for Denver, we should all help to support them. I am anxious to hear from you and look forward to your help in promoting this unique concept to all the Metropolitan area voters.

Edward Connors

Edward Connors
President, Board of Trustees
Denver Botanic Gardens

Tributes

In honor of Robert N. Poole
Jean Holt

In memory of William F. Clifford
James Clifford
Mr. & Mrs. Terrance Hansen
Mr. & Mrs. Anthony Rinella

In memory of Micky Dreyer
Jack & Nan Deter

In memory of Earl Edwards
Associates of Denver Botanic Gardens

In memory of Christine Hommel
Carol Chimera
Cathy Lawry
Julie MacKellar

In memory of John J. Vance
Mr. & Mrs. Frederic M. Pannebaker

In memory of Rae Watson
Dr. & Mrs. Jack Stoffel



Green Thumb News Number 87-7 July 1987

Published monthly by the Denver Botanic Gardens Education department, 909 York Street, Denver, Colorado 80206, and edited by Patricia A. Pachuta and Carolyn Knepp. Subscription to this newsletter is a benefit of membership in the Botanic Gardens. For membership information, please write the Membership department at the above address or call 575-3751.

Deadlines for this newsletter are: Major news stories, feature material (including photographs or artwork), and short notes are all due not later than June 19 for August, July 20 for September and August 19 for October.

Please plan in advance and meet deadlines. Late material cannot be used. Stories must be typed, double-spaced, preferably on copy paper provided by the editor. Please call the Education department at 575-3751 for details.



Accredited by the
American Association
of Museums

HAWAII

Travel with the
DENVER BOTANIC GARDENS

October 3 - 11, 1987

to

KAUAI

"GARDENS IN PARADISE"

This tour combines a variety of tropical foliage with magnificent sightseeing.

Highlights include:

- 🌿 Garden visits on Kauai to **WAIOLI MISSION HOUSE** and **GROVE FARM HOMESTEAD**
- 🌿 **PACIFIC BOTANICAL TROPICAL GARDENS** and **ALLERTON GARDENS**
- 🌿 The splendid **OPAEKAA FALLS**
- 🌿 **WAILUA RIVER** and **FERN GROTTO** in Kauai
- 🌿 **HAWAII VOLCANOES NATIONAL PARK** with lunch overlooking the **KILAUEA VOLCANO**
- 🌿 **RAINBOW FALLS**
- 🌿 **LILIUOKALANI GARDENS**
- 🌿 Two nights at Westin's **MAUNA KEA BEACH RESORT** with 500 acres of gardens and private beach
- 🌿 Personally escorted by staff from the Denver Botanic Gardens

COST is \$1655* double occupancy including airfare from Denver.

Space is limited

For more information **CALL**

Travel associates, inc. **759-8666**



*\$100 is a tax deductible contribution to Denver Botanic Gardens

ITINERARY

DENVER BOTANIC GARDENS (Gardens in Paradise)

HAWAII 1987

SATURDAY

October 3

Leave Denver, arrive Hilo, changing planes in Honolulu.
Accommodations at the NANILOA SURF.
Evening at leisure to enjoy the local cuisine.

SUNDAY

October 4

A full day of sightseeing awaits you. Head for Rainbow Falls. This is the best time to catch a glimpse of a rainbow in the mists of the thundering cascade of water, tumbling over the rocks to the pool below.

Next, Liliuokalani Gardens. Landscaped in a lovely formal style around a Japanese teahouse, the grounds are covered in footpaths, bridges, pagodas and ornamental rocks.

This morning you will also tour an orchid and anthurium nursery.

After a morning of rainbows, flowers and gardens, you'll travel through Hawaii Volcanoes National Park, with its Kilauea Crater, steam vents, sulphur banks and giant tree ferns. Lunch at the Volcano House, overlooking Kilauea Volcano.

Continue westward to your hotel, THE WESTIN MAUNA KEA BEACH RESORT.

This evening relax and enjoy the beauty and luxury of this splendid hotel.

MONDAY

October 5

Today you will have a short private tour of the gardens at Mauna Kea Beach Hotel by one of the hotel's skilled gardeners. Balance of the day is at leisure to enjoy this world-famous resort. Perhaps you might enjoy the lei-making class at Mauna Kea using some of the islands most colorful and fragrant flowers.

TUESDAY

October 6

This morning, check out of Mauna Kea Beach Hotel in time for the flight to Lihue, Kauai.

Accommodations at the POIPU BEACH HOTEL.

Balance of the day at leisure.

WEDNESDAY

October 7

This morning a visit to the Pacific Botanical Tropical Gardens is scheduled.

This garden, which runs down sunny Lawai Valley on the south side of Kauai, is a special treat since it's the only tropical research garden in the U.S. and cultivates plants as rare as the white Tahitian mountain apple alongside hundreds of variations of the ubiquitous palm.

Next visit the Allerton Gardens, the work of Robert Allerton, a wealthy Chicago banker, and his son, John Gregg Allerton. They are an enchanting combination of formal gardens and tropical jungle.

Return to the hotel, early afternoon. The balance of the day on your own.

THURSDAY

October 8

A full day of activities today. You will start off with an excursion on the Wailua River, to the beautiful Fern Grotto. This beautiful fern draped cave, under a cascade of water, has been the scene of many Hawaiian weddings.

Enjoy lunch on your own in the area around the beautiful coco palms.

After lunch, you have a treat in store, with a stop at the Grove Farm Homestead, and a specially arranged, personal tour.

The group will then stop and look at the splendid Opaekaa Falls, before returning to your hotel late this afternoon.

FRIDAY

October 9

On today's agenda is a drive to the Waioli Mission House, and its lovely gardens. After a private tour, you will have lunch on your own in the Princeville Sheraton area. You might like to stroll through the lovely grounds at the Princeville, overlooking Hanalei Bay.

After lunch, the group will look at some of the wild flora and fauna of the area, and then go to Limahuli Garden. This is a lesser known part of the Pacific Botanical Gardens - opened specially for your group.

Return to the hotel, late afternoon.

SATURDAY

October 10

Today is your last chance for independent sightseeing, shopping, or enjoying the many water activities of Kauai.

Transfer this evening to the Lihue Airport for the return to Denver, arriving Sunday Morning.

CONDITIONS

The price of the land arrangements for this tour on a share basis is \$890.00 per person. The price of the airfare from Denver for this tour is \$665.00 per person.
Plus tax deductible contribution to Denver Botanic Gardens is \$100.00. Single supplement for this tour is \$445.00.

Reservation Form

HAWAII 1987

Enclosed please find my deposit for _____ places at \$200 per person on the Denver Botanic Gardens Hawaii tour.

NAME: _____

ADDRESS: _____

CITY: _____ STATE: _____ ZIP: _____

PHONE: Home _____ Business _____

SEND TO: Travel Associates, 7007 East Hampden Avenue, Denver, Colorado 80224

1987 Terrace and Garden Tour

continued from page 1

are \$8 for adults and \$4 for children. They may be purchased in advance at the DBG Gift Shop, from Guild members or at the tour homes the day of the tour.

Following are brief descriptions of the gardens included in the 1987 Terrace and Garden Tour. Visit all of the homes or just the ones with special appeal.

350 Franklin Street

Of historical interest is the fact that this garden is basically faithful to the plans of S. R. DeBoer, landscape architect of the Denver park system. The plans are in the gazebo for your viewing. Herbaceous borders scallop the fence along Franklin Street and contain phlox, coral bells, peonies and irises with roses and clematis climbing the fence. Approximately 100 roses and 45 evergreens grace this well-planned garden at the home of Mr. and Mrs. Philip R. Moore.

170 High Street

"The most interesting thing in this garden," states its owner, Dr. Karl Arndt, "is the arrangement of space—covered and uncovered." Columnar buckthornes provide a screen in the service yard while a trapezoidal iron fence supports beans in the vegetable garden. Lavender, tarragon, oregano, chives, basil and lemon verbena fill the herb garden. A walled fountain made from Colorado travertine marble is the central focus in the back court and is flanked by a rose garden.

1953 East Third Avenue

This garden's theme is privacy with a classical treatment. A pair of Norway globe maples greets visitors at the entrance of this home and a small city garden lies beyond. Jane Silverstein Ries designed this garden with its raised brick planters, pink impatiens and pink begonias.

401 Westwood Drive

Mrs. and Mrs. Thomas Bailey have a yard designed by Alan Rollinger that meets the demands of an active life. The emphasis is on low maintenance, with attention given to special requirements. The family pet has a "private yard" screened by coral bells, peonies, irises, cherry trees and clematis. Passing the children's tree house and the family terrace, you come upon the "company" terrace that incorporates an old locust with a view of the vegetable garden and the canopy-shaped crab apple carpeted with lily-of-the-valley.

640 S. University Boulevard

Mr. and Mrs. Charles Arnold demonstrate their love of trees in this garden. As you enter the garden to



A glimpse into the garden at 1953 East Third Avenue

the north, you will notice a bald cypress, pin oak, white pine and Canadian chokecherry. The steps to the terrace are bordered by euonymus and tall evergreens are everywhere. Deciduous trees, including hazelnut, Ohio buckeye, catalpa and a clump of three Kentucky coffee trees, created a perfect background for a wedding for one of their children this summer.

7 Polo Club Drive

Mr. and Mrs. Gilbert Marchand's garden provides the perfect site to relax and enjoy some refreshments while touring the gardens. Comfortable seating under the pergola in the herb garden awaits visitors. Lady's mantle, comfrey, lamb's ear, lemon balm, tarragon, French sorrel, marjoram, tansy, lavender and basil provide a delightful array of fragrances. Inside the gate is a cutleaf elderberry and approaching the terraces are some wonderful ferns in barrels. Don't rush, rest awhile and enjoy this relaxing garden.

41 Polo Club Drive

The seventh garden offers a glimpse into a garden with a northern Italian influence. Mr. and Mrs. David Dorn have created a European ambience with travertine marble sculptures, stucco walls covered with cascading grapevines and a cloistered upper terrace complete with a fountain and formal beds.

Water Lilies as Cut Flowers

Learn how to use water lilies as cut flowers at the next Colorado Water Garden Society meeting. The group will meet on Sunday, July 12 at 2 p.m. in the DBG House at 909 York Street.

As usual, questions about any aspect of water gardening are welcome. Information about the society may be obtained by calling 922-9559.



Hot Rize performs at the Gardens.

July Concert Schedule

Attend a summer concert at Denver Botanic Gardens and surround yourself with friends and flowers. United Bank of Denver, KCFR and DBG have once again joined hands to present this season's Garden Concert Series. Tickets go on sale this month for the following performances:

Hot Rize

Thursday, July 23, or Friday, July 24 at 7:30 p.m. (rain date—Wednesday, July 29 at 7:30 p.m.) Gate opens at 6 p.m. *Tickets on sale starting Monday, July 13.* Hot Rize is one of Colorado's favorite bluegrass bands and they're bringing "Red Knuckles and the Trailblazers."

Music from the Aspen Music Festival: The American Brass Quintet with "Aspen Brass"

Thursday, August 6 at 7:30 p.m. (rain date—Saturday, August 8 at 7:30 p.m.) Gate opens at 6 p.m. *Tickets on sale starting Monday, July 27.* The American Brass will be joined by musicians from the Aspen Music Festival to provide a 12-piece brass choir of magnificent music.

If weather threatens remember to tune to KCFR 90.1 FM on concert days for weather forecasts, as well as for announcements about concert status before and during broadcasts of *All Things Considered* (4 to 6:30 p.m. weekdays).

Young Audiences, Inc., in cooperation with PACE Membership

Warehouse, Inc. and Denver Botanic Gardens will present an additional series of concerts this summer—for children of all ages. The two remaining concerts are:

"Snow White: The Ballet"

Tuesday, July 14 at 6:30 p.m. Gate opens at 5:45 p.m. Interpretation for this program will be provided by the Colorado Ballet and the Colorado Youth Ballet. Veteran Denver actor Steve Lighthouser will double as Narrator and Evil Queen. Christina Clavijo-Noel is featured as Snow White with all-new choreography by Sharon Randolph-Krantz, assistant artistic director of the Colorado Ballet. Development of this special program has been made possible by grants from May D & F and the Mayor's Commission on Cultural Affairs.

"From Joplin to Jitterbug"

Tuesday, July 28 at 6:30 p.m. Gate opens at 4:45 p.m. Come and dance along with the Gold Rush Dixieland Band and the Jan Justis Dance Troupe in a toe-tapping celebration of ragtime and jazz. Generous support for this program has been provided by First Interstate Bank of Denver.

For complete details on fees and where to obtain tickets, please refer to your *June Green Thumb News* or call 575-3751 for additional information.

Come Out and Vote!

Each year Denver Botanic Gardens tests a variety of new plants for their attractiveness and suitability for our growing conditions in Colorado. This year, with the support of a number of growers in our region, we are asking you to participate in our evaluation process.

When you visit the Gardens, stop at the Annual Test Area and pick up a list of the plants that are grown there. Mark off those that you find most interesting or attractive. This information will be added to our plant records data along with other traits such as pest resistance, flowering habit and foliage type. You may even find an especially intriguing annual to add to your own garden.

Colorado Watercolor Society Show July 2-5

A reminder that the annual show of the Colorado Watercolor Society is being held July 2-5 in John C. Mitchell II Hall, from 10 to 4 each day.

In addition, you are invited to attend the opening reception on Thursday, July 2, from 5 to 7 p.m. to welcome the artists. Take advantage of this first opportunity to purchase a piece of art; there is no charge and refreshments will be served.

For further information, please call Ann White at 781-8778 or Rita Zimmerman at 798-5612.

Members' Green Thumb Day Set for Saturday, August 29

Attention DBG members! Reserve Saturday, August 29 to come to the Gardens for Green Thumb Day. This is your annual chance to pick up a plant of your choice as well as attend special activities and classes.

As usual, the annual plant giveaway features a large assortment of indoor and outdoor plants. A coupon will be provided in your August newsletter to exchange for a plant but remember to come early for the best selection.

Numerous gardens, such as our Aquatic Plant Display Area, are at their best in late summer and guides to answer your questions will be available throughout the grounds. Children will be delighted by the Raptor Society demonstrations and members of the horticultural staff will offer classes.

Three different classes, each an hour and a half long, are scheduled. At 10 a.m. Rock Alpine Curator Panayoti Kelaidis will present "Minor Bulbs Strike a Major Note," just in time for fall planting. He will introduce some of the smaller, more unusual bulbous plants such as dwarf Turkish tulips that will add an exotic touch to your garden.

Botanist Horticulturist Gayle Weinstein will discuss some of the best alternatives to traditional landscaping for Denver. Learn to grow dryland natives in her program, "Low-Water Demand Plants," at noon.

For the indoor gardeners, Gardener Florist II Gary Davis will present "Jungle Gems," a lecture at 2 p.m. describing some of the more distinctive, yet easily maintained foliage plants. Meet the seersucker plant and the voodoo lily.

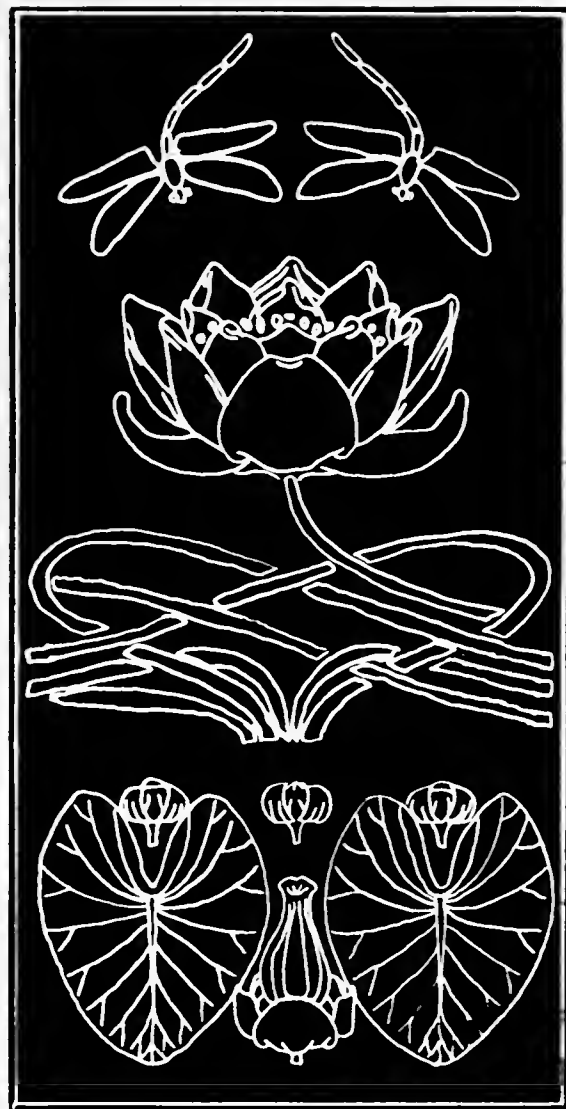
Classes are \$2.50 each for members or \$5 for non-members and registrations should be made using the Education department form on page 10. There will be a "plant check" in one of the classrooms during the day for those who wish to store their plants during the other activities.

Additional information, including your plant coupon, will be available in the August *Green Thumb News*.

New Members' Party July 15

New members who have just joined the Gardens are reminded that a special welcome party is planned for Wednesday evening, July 15. If you did not receive an invitation, please call the Membership department at 575-3751, extension 22.

Third Annual International Water Lily Symposium— August 20-22



Discover the excitement of water gardening in a stimulating three-day program presented by the Colorado Water Garden Society, Denver Botanic Gardens and the Water Lily Society. The symposium will be held at the Regency Hotel in Denver, Thursday through Saturday, August 20-22.

Experts from the United States and abroad will cover landscaping, propagation, hybridization and maintenance of the increasingly popular water plants.

Optional tours before and after the symposium will visit noteworthy, private local water gardens as well as the lofty, snow-capped peaks of Rocky Mountain National Park.

The early registration (before July 10) fee is \$125 for members of DBG, the Colorado Water Garden Society or the Water Lily Society; non-members will be charged \$140. Late registration for members of the sponsoring organizations is \$140 and \$155 for non-members. Or, you may choose to attend for a single day at \$35.

For more information please contact Conference Chairman Andrew Pierce at 575-3751, extension 18.

4th WORLD WILDERNESS CONGRESS WORLDWIDE CONSERVATION

Colorado will be in the international spotlight as political and scientific leaders from all over the world convene the Fourth World Wilderness Congress in Denver and Estes Park, September 11-18. This will be the first time that this major conference will be held in the United States and 2,000 people from over 30 countries are expected.

The public is also encouraged and invited to attend. The Fourth World Wilderness Congress is a public forum where concerned citizens are invited

to join other participants from business, politics, agriculture, science, and the arts and humanities.

Topics will include tropical rain-forest and wildland diversity, a global wildland inventory and a plan for a new conservation bank to focus on the link between environmental health and economic development. A special discount will be available to DBG members. Watch your August newsletter for more information or call the 4thWWC office at CSU, 491-5804.





Day Lily Show and Sale July 19

Although there are over 10,000 varieties of day lilies in cultivation today, only three were commonly grown in the United States before World War II. The genus *Hemerocallis* is diverse: There are dainty miniatures to stout six-foot specimens in myriad shades from mahogany to melon. A colorful array of day lilies in assorted sizes and shapes will be exhibited in John C. Mitchell II Hall on Sunday, July 19, when Region 9 of the American Hemerocallis Society holds its annual show and sale.

Displays of individual blooming stems (scapes), selected seedlings of local hybridizers and artistic arrangements of day lilies will tempt you to add this versatile perennial to your garden.

Show hours are from noon to 4:30 p.m. and there is no charge other than the usual non-member gate admission fee. Further information on the show may be obtained from Charles Baker, 757-8703, or Charles Westbrook, 233-4606.

And remember to stroll through the DBG Day Lily Garden which features almost 500 varieties.

Glass at the Gardens August 6-9

One of the prettiest and most popular shows of the year is presented by the Glass Artist's Fellowship. Their eighth annual "Glass at the Gardens" exhibit will be held in John C. Mitchell II Hall from Thursday, August 6, through Sunday, August 9, for all to enjoy.

Last year over 9,000 enthusiastic people came to see and buy art glass. They purchased beautiful, original pieces and in so doing contributed 25 percent of the sale proceeds to the Gardens.

This year there will be four judged divisions. "Fine Art" will feature works by some of the region's best glass artists. "Small Glass Objects" was very successful last year and will be repeated again along with "Fine Craft"

which features works priced up to \$300. A new "Students" division will display the work of beginning stained glass artists.

This once-a-year show and sale is the largest exhibit of original stained glass by Rocky Mountain artists. Bring a friend and introduce yourself to glass art and your friend to the Gardens. The show will open at 9 a.m. each day and will remain open Thursday, August 6, during "Music from the Aspen Music Festival: The American Brass Quintet with the Aspen Brass." On Friday and Sunday the show will close at 4:45 p.m. but will remain open until dusk on Saturday, August 8, during extended evening hours. Only the regular non-member gate admission fee will be charged.



Alpine Ecology

(two sessions: lecture and field trip)

Wednesday, July 8 from 7 to 9 p.m. in Classroom C
Saturday, July 11 from 8 a.m. to 5 p.m. Field Trip

Learn to identify major plant species in the various plant communities of the alpine environment above timberline in the Rockies. Emphasis will be on the ecology of these communities including soil features, climate and the biological adaptations and plant forms dominating these areas.

The second session will feature a field trip to Rocky Mountain National Park; you'll need lunch, drinking water and rain gear. Suggested text: R. Nelson's *Plants of Rocky Mountain National Park* (available in the DBG Gift Shop).

Instructor: Paul Kilburn, Ph.D., taught botany at Principia College, Elsah, Illinois, as well as summer flora and ecology courses for the University of Colorado. He spent several summers doing tundra research at the Institute of Arctic and Alpine Research, University of Colorado, Nederland.

Fee: \$15 members/\$16.50 non-members

Limit: 15

Nesting Birds of Golden Gate Canyon State Park

Tuesday, July 14 from 8 a.m. to 1:30 p.m.

House wrens, mountain bluebirds, sapsuckers, swallows and vireos are just a few of the birds to be seen on this field trip. Observe territorial disputes, courtship feeding and nest maintenance.

Different birds will be observed than in the June outing to Chatfield Arboretum. Birds and plant associations of the upper montane zone will be stressed.

Please bring sunscreen, lunch, drinking water, comfortable shoes (sneakers are fine) and your binoculars. A field guide to the birds will be useful.

Instructor: Tina Jones

Meet: at 8 a.m. in the main DBG parking lot to carpool and receive directions. Or, participants may also assemble at 8:30 a.m. at the Geologic Road Cut (I-70 and Highway 93) parking lot on the northeast corner after the exit.

Fee: \$7.50 members/\$8.25 non-members

Limit: 20



Four-Legged High Altitude Creatures

(two sessions)

Thursday, July 16 from 7 to 9 p.m. in Classroom C

Monday, July 20 from 8 a.m. to 3:30 p.m. Field Trip

Did you know that Rocky Mountain goats, marmots and pikas can have a tremendous effect on tundra plants? What alpine do pocket gophers and meadow voles dine on?

Although plants and animals will be identified on the field trip, the course will emphasize the relationships and associations between the flora and fauna that live above timberline. The introductory evening slide lecture will provide a basic understanding of Colorado's tundra.

For the field trip to Mount Evans/Summit Lake, students should bring sunblock cream, rain gear, good walking shoes, additional warm clothing such as a sweater, drinking water and lunch. Don't forget your binoculars.

Instructor: Tina Jones, popular naturalist and field trip leader, studied alpine ecosystems at the University of Colorado, Boulder, Research Station outside of Ward, Colorado.

Meet: For the field trip, meet promptly at 8 a.m. in the main DBG parking lot to carpool. Students can also assemble at 8:30 a.m. at the Geologic Road Cut (I-70 and Highway 93), parking lot on the northeast corner after the exit. Please note that there is little physical exertion; students will walk primarily on flat terrain and will not go higher than Summit Lake.

Fee: \$15 members/\$16.50 non-members

Limit: 20

Field Trip to Rocky Mountain National Park

Saturday, July 11 10 a.m. to 3 p.m.

Explore the rich woods surrounding two of the prettiest, most accessible lakes in the park. Participants will see various members of the heath family such as pyrolas and wintergreens that are at home in the moist areas of the subalpine forests.

The leader is especially fond of the wild orchids, and with luck, the group should find several of these including the elusive little purple lady's slipper, *Cypripedium fasciculatum*.

Don't forget your lunch.

Leader: Dick Schwendinger

Meet: promptly at 10 a.m. at the Moraine Park Visitor Center. Please call the Education department at 575-3751, extension 20, if you need directions. Each car entering the park must purchase a daily user pass in addition to the field trip fee.

Fee: \$5 members/\$5.50 non-members

Columbine Field Trip

Wednesday, July 15 9 a.m. to 4 p.m.

Our state flower should be blooming in profusion on this traditional field trip to a site near Bailey.

Located at the edge of the montane zone, habitats visited will include a damp gulch and a ponderosa pine forest.

If the group is lucky, wood lilies may be found. Bring a sack lunch.

Leader: Peter Root

Meet: at 9 a.m. in the main DBG parking lot to carpool and receive directions. Participants will share gasoline expenses.

Fee: \$2 per person

Limit: 20

CLASSES

Summer
1987
Denver Botanic Gardens



Tundra Trip to Corona Pass

Saturday, July 18
9 a.m. to 4 p.m.

Visit one of the most spectacular passes in the Front Range. Observe tundra ecology and many different wild flowers as well as man's influences. Follow the abandoned railroad to the hotel on top, look at ancient Indian game drive fences and see gas pipeline revegetation in this high altitude environment.

The abundant wild flowers found here include paintbrushes, early gentians, miniature clovers, alpine avens and snow buttercups.

Don't forget your lunch and rain gear; bring a hand lens and plant books if you have them.

Instructor: Paul Kilburn, Ph.D.

Meet: promptly at 9 a.m. at the northeast parking lot of the Rock Cut (I-70 and Highway 93).

Fee: \$5 members/\$5.50 non-members

Limit: 18

Field Trip to Mount Goliath

Sunday, July 26
8 a.m. to 3 p.m.

Tundra flowers hold a special fascination for both amateur and professional botanists and Mount Goliath is an exceptional place to observe them. Carpets of dainty wild flowers are complemented by grand mountain vistas and the sculptured, grizzled beauty of the bristlecone pines.

Join two experienced field trip leaders and walk the M. Walter Pesman Trail, a winding 1.5-mile downhill path at 12,100 feet.

Please bring your lunch, drinking water and jacket and wear comfortable walking shoes.

Leaders: DBG Assistant Director Andrew Pierce is an avid rock gardener and alpine plant enthusiast who has led many trips to Mount Goliath; Velma Richards is a botanist who volunteers regularly in our Kathryn Kalmbach Herbarium.

Meet: Promptly at 8 a.m. in the main DBG parking lot.

Fee: \$15 members/\$16.50 non-members (includes Janet L. Wingate's illustrated brochure, *Wildflowers of Mount Goliath*, as well as bus transportation)

Limit: 45

Feasting on Edible Wild Plants

(two sessions)

Monday, August 24 from 6 to 9 p.m.
Saturday, August 29 from 9 a.m. to 3:30 p.m.

Morrison Center

Have you ever tasted tempura milkweed or yucca flowers? How about baked roots of cattail? Learn about some of the common wild edible plants of Colorado and actually cook and sample them.

In the first session, students will learn how to identify both edible and poisonous plants in the classroom and the field. Participants will cook and feast on these wild treats in the morning of the second meeting before a short field trip in the afternoon.

Come to the first class prepared for wet feet (preferably with an old pair of sneakers). Bring an appetite for the morning tasting session of the second class along with a snack for a late lunch.

Instructor: Tina Jones

Fee: \$15 members/\$16.50 non-members

Gentians Galore

(one session)

Thursday, August 20
8 a.m. to 4:30 p.m.

Come on an easy walk to see a spectacular meadow full of gorgeous gentians. Use a key to learn to identify three or four different kinds as well as other plants such as pyrolas.

The group will visit a site in Rocky Mountain National Park to observe subalpine plants and their communities. Information on some edible plants, such as mountain ash and elderberry, will also be provided.

Please bring your lunch, water, sunscreen, comfortable walking shoes, sweater or light jacket, rain gear and binoculars, if you have them. William Weber's *Rocky Mountain Flora* or one of Ruth Ashton Nelson's plant guides would also be useful.

Leader: Tina Jones

Meet: promptly at 8 a.m. in the main DBG parking lot to carpool and receive directions. Please note that each car entering the park must pay a \$5 admission fee in addition to the class charge.

Fee: \$7.50 members/\$8.25 non-members

Limit: 20

Flowers, Insects and Pollination

(two sessions) Classroom C

Tuesday, August 25
6:30 to 8:30 p.m.

and Sunday, August 30
9 a.m. to noon

Learn about the fascinating partnership of insects and flowers in this introductory course. Find out how butterflies, honeybees, moths, bats, birds and flies benefit flowers. Topics to be covered include: nectar-collecting, insect scent and smelling, pollination and pollination techniques, flower colors as attractants and floral nectar guides.

The course consists of a slide lecture on Tuesday; on Sunday, students will meet briefly indoors to be followed by a walk at the Gardens to observe specific interactions. Bring a hand lens if you have one.

Instructor: Tina Jones

Fee: \$16 members/\$17.50 non-members

Further Techniques in Botanical Illustration

(six sessions)

Saturdays, July 18, 25, August 1,
8, 15, 22

1:30 to 3:30 p.m. Classroom B

Spend Saturday afternoon capturing summer's bountiful floral beauty in your drawings. This course is designed for amateur or working artists with advanced drawing skills. Previous botanical illustration classes are necessary, but may be waived with the permission of the instructor.

Focusing on accuracy, style and composition, students will work with colored pencils or watercolors.

Please bring two drawing pencils (2B and 3H), an eraser and either a colored pencil set (Berol Prismacolor is recommended) or watercolor materials. A drawing pad will be provided.

Instructor: Rob Proctor is a Boettcher scholar who studied at the University of Colorado. He has held one-man shows in three countries and his botanical drawings and watercolors hang in many collections throughout the world.

Fee: \$54 members/\$59 non-members (includes \$6 for materials)

Limit: 15

Beginning Bonsai

(three sessions)

9:30 a.m. to noon Classroom B
Section II: Saturdays, July 11, 18,
25

This introductory course will cover the historical and cultural techniques of bonsai, the art of creating dwarf trees and shrubs. Instruction on styling, training, potting and general care of bonsai will be included.

Each student will take a completed bonsai home and all materials will be provided.

Instructor: Keith Jeppson, past president of the Rocky Mountain Bonsai Society, is an experienced bonsai hobbyist of 15 years. Harold Sasaki is a commercial bonsai grower and an experienced bonsai hobbyist of 17 years. Both are capable and lively instructors.

Fee: \$50 members/\$55 non-members (includes a \$20 materials fee)

Limit: 15

Beginning Ikebana Lessons

(four sessions) 1 to 3 p.m.
Saturdays, July 11, 18, 25,
August 1

DBG's Morrison Center at 2320
East 11th Avenue

In this introductory course, students will view slides and gain a preliminary understanding of four schools of arranging: Ikenobo, Chiko, Ohara and Sogetsu. They will practice and take home beginning styles of light, airy arrangements.

Please bring the following materials to class: a round or rectangular flower container (no smaller than 12 inches long and two inches deep), two needlepoint flower holders (one that is two inches wide and one that is three inches wide or larger), sharp clippers, small bucket (or other container to hold flowers and water) and a notebook. Some supplies, such as containers, flower holders and clippers, are available in the DBG Gift Shop.

Instructor: Joan Wooldridge is a certified teacher of Sogetsu with instruction in the schools of Ohara and Ikenobo. She recently returned from the Fifth World International Ikebana Convention in Kyoto where she served as official delegate from the Denver chapter.

Fee: \$44 members/\$47 non-members (includes \$12 for flowers)

Limit: 12

More Lessons in Ikebana

(four sessions) 10 a.m. to noon
Saturdays, July 11, 18, 25,
August 1

DBG's Morrison Center at 2320
East 11th Avenue

This course is for students who have had some previous instruction in ikebana and will include an introduction to nageire.

Please bring the following materials to class: a round or rectangular ceramic flower container (no smaller than 12 inches long and two inches deep), two needlepoint flower holders (one that is two inches wide and one that is three inches wide or larger), sharp clippers, small bucket (or other container to hold flowers and water), a tall (ten inches or more) container for nageire and a notebook.

Although flowers will be provided, students should bring their own line material (branches) cut from their yards.

Instructor: Joan Wooldridge

Fee: \$44 members/\$47 non-members (includes \$12 for flowers)

Limit: 12

Summer Cooking with Herbs

(three sessions)
Wednesdays, August 5, 12, 19
6:30 to 8:30 p.m. Morrison Center

Learn to use fresh herbs to add zest and variety to your cooking in this hands-on course. Students will learn various techniques of herb cookery as they prepare appetizers, soups, salads and main dishes to be eaten at the conclusion of class. The recipes chosen will be easily prepared and will emphasize fresh produce.

Sample grilled Cornish hens with rosemary and thyme, salmon mousse with dill sauce, pasta and fresh pesto, cold sorrel soup as well as a host of seasonal salads and vegetables.

Please bring an apron and a sharp knife to class.

Instructor: Pat Pachuta is Education Director at DBG; she is an avid herb gardener and an enthusiastic cook.

Fee: \$39 members/\$43 non-members (includes \$15 for three dinners)

Limit: 12

Japanese Tea Ceremony

(one session) 2 to 3 p.m.
Section VIII: Saturday, July 11
Section IX: Sunday, July 26
Tea House in DBG's Japanese
Garden

Please indicate your section on the registration form.

Because of its emphasis on such concepts as harmony, respect, purity, tranquility and elegant simplicity, the tea ceremony has for centuries been considered the epitome of Japanese life. This is an opportunity to experience an authentic tea ceremony in the quiet splendor of our Japanese Garden.

Instructor: Kathryn Kawakami has done much to inform Denver area residents and students about the culture of Japan. She will be assisted by William Crowder who studied the Tea Ceremony in Japan at Ura Senke.

Fee: \$4.50 members/\$5 non-members

The Gardens Through Artists' Eyes: A Botanical Illustration Workshop

(four sessions)
Monday through Thursday,
August 3, 4, 5, 6
10 a.m. to 3 p.m. Classroom B

Spend four happy days enjoying the Gardens at their peak under the guidance of two professional artists. In the mornings, students will tour the grounds and greenhouses with renowned artist and gardener Rob Proctor. Emphasis will be placed on the colors, textures and contrasts of the glorious flowering plants of summer.

Following a picnic lunch in a shaded glade, an intensive drawing workshop will begin. Experienced illustrator and instructor Angela Overy will teach beginners how to draw a flower in just four days.

Drawing pad and pencils will be provided; students should bring lunch as well as additional colored pencils and watercolors if desired.

Instructors: Angela Overy received her National Diploma of Design from London University, England, and designed in London, New York and San Francisco before settling in Denver. She has taught at DBG for seven years.

Rob Proctor is a Boettcher scholar who studied at the University of Colorado. He has held one-man shows in three countries and his botanical drawings and watercolors hang in many collections throughout the world.

Fee: \$86 members/\$94 non-members (includes \$6 for materials)

Limit: 20

Arranging Lessons with Fresh Flowers

(four sessions)

Mondays, July 6, 13, 20, 27

9 a.m. to noon Classroom B

Summer is the perfect time to learn how to make floral arrangements to complement a favorite spot in your home. Students will learn how to select and cut fresh flowers for arrangements that will be prepared in class.

Please bring two containers (no glass or silver), clippers, scissors or knife, a large bucket for gathering flowers and two needlepoint flower holders (available in the DBG Gift Shop). All other materials, including flowers, will be provided.

Instructor: Avalonne Kosanke is a master flower judge for the National Council of State Garden Clubs and has over 25 years of teaching experience.

Fee: \$53 members/\$58 non-members (includes a \$5 materials fee)

Limit: 15

Dry It. You'll Like It.

(two sessions)

Tuesday, July 14, 21

9:30 to 11:30 a.m. Classroom B

Dahlias, zinnias, roses and black-eyed Susans are among the flowers whose beauty you will learn to preserve in silica gel in this class. Students will select and dry garden and roadside flowers for use in winter arrangements.

Please bring two plastic shoe boxes with lids, a small plastic bucket with a handle, scissors, clippers, wire cutters, a small, soft artist's brush and an empty three-pound coffee can with lid. All other materials, including flowers, will be provided.

Instructor: Avalonne Kosanke

Fee: \$26 members/\$28 non-members (includes a \$10 materials fee)

Limit: 20



Flower
arranging
instructor
Avalonne
Kosanke

Chair Caning

(three sessions)

Tuesdays, August 11, 18, 25

7 to 9 p.m. Classroom B

Learn an age-old craft. Replace that sagging or broken seat in your hard cane, pressed cane, rush or reed chair. With homework, you'll be able to complete at least one project during this course.

No previous experience is necessary. Materials will cost approximately \$10-

\$20 and can be purchased at the first session. The instructor will contact each student prior to class to discuss each project.

Instructor: Jill Goldberg is a self-proclaimed "cane addict" who learned the art from her mother. She has taught numerous courses and operates her own business, "The Able Caner."

Fee: \$24 members/\$26.50 non-members. Materials are purchased separately.

Limit: 10

Denver Botanic Gardens
909 York Street
Denver, Colorado 80206

Fees for courses should be paid in advance by check or money order made out to Denver Botanic Gardens. Since the space is limited in many courses, registration should be mailed in promptly. Your registration will NOT be acknowledged. Your name will be placed on the class list the day your money is received. No enrollments for class by phone please. All courses given are subject to a minimum enrollment of ten students. For further information, please call 575-3751.

Registration Form for Classes and Field Trips

The enclosed check, in the amount of _____, is to cover the registration fees for the following classes:

Name and section of classes _____

Name _____

Address _____

City _____ State _____ Zip _____

Home Tel. No. _____ Business Tel. No. _____

Member of Denver Botanic Gardens? ☐ Yes ☐ No

Gardening Tips for July by the Drs. Green

This Month

This is indeed a delightful time in the garden. Many of the annuals and perennials that were planted this spring are now in full flower. To prolong the flowering period, you must deadhead: Pinch or cut off the spent flower heads.

As the weather gets hotter and drier, keep an eye open for mites and aphids. Both live by sucking plant juices. Two-spotted or red spider mites are the most common type now. They produce discoloration and stippling of the leaves and fine webs are often noticed. To prevent leaf loss and the subsequent death of the plant, spray the leaves, particularly the undersides, with a strong jet of water to dislodge them. Miticides can also be used. Repeat either treatment at 10-14 day intervals.

Aphids tend to attack the growing tips of the plant as well as the leaves. These pests can also be washed off or treated with insecticidal soap or an insecticide.

This is also the time to replant vegetables. Many of them thrive in the cooler weather of spring and autumn. Spinach, lettuce and the many cole crops (cabbage, broccoli, cauliflower, kohlrabi) fit into this category. Replant now and they should mature in late August and September. In fact, many gardeners claim that a mild frost will actually improve their flavor.

Enjoy the lilies that flower this month. While different varieties bloom from June through August, the majority can be seen in July. The Lily Garden and the Lily Path, located in the southeast corner of Denver Botanic Gardens, display over 300 different selections. Consider adding some to your own garden—their ease of maintenance and beautiful, fragrant flowers won't disappoint you.

Q Purslane, spurge, clover, chickweed and dandelion are taking over my lawn. How can I get rid of them?

A The best solution is prevention. A healthy, well-tended lawn is much less likely to become infested with weeds. Deep, but less frequent watering promotes good root growth and helps discourage weeds. If the lawn is mowed very close to the ground, weeds get established more readily so try a higher setting on the lawn mower.

If the problem is not major, hand removal is best; just be sure to remove the roots. As a final resort, broadleaf

weed killers can be used. Focus the chemical with a spot sprayer and avoid getting the spray on non-weeds since it will kill all broad-leaved plants. Follow directions exactly and never spray when it is windy. One application is usually enough.

Q Some of the upper branches of my crab apple have died. The branches have shrunk, blackened areas at the bases of the dead parts. Could it be fireblight? What should I do?

A Fireblight is a bacterial disease that attacks a number of woody plants in the rose family (Rosaceae) such as apples, crab apples, plums, mountain ashes and cotoneasters. The wilted leaves persist on the blackened, diseased branches giving an overall scorched appearance, hence its name.

Fireblight is very destructive and highly infectious. The disease is spread by insects that carry the bacteria to the flowers in the spring. The infection progresses from the shoot to the larger limbs where the cankers form.

The disease is difficult to treat and the best approach is prevention. Read descriptions carefully and plant only varieties that are known to be resistant. Otherwise, if the tree is only mildly infected, the diseased branches can be pruned. Remove the infected branches below the diseased area in July or August. Avoid further spreading the blight by carefully

disinfecting your pruners with rubbing alcohol after touching the diseased branches. Remember to dispose of these prunings so the disease cannot be transmitted further.

The bacterium is susceptible to Streptomycin, but it is almost impossible to treat because it is difficult to reach the organism with the antibiotic. If the tree is severely infected, it should be removed.

Q My large clump of bearded iris is now too big for my garden. It has just finished blooming and I wonder if this is the right time to divide it.

A Bearded irises spread by growth of thick, underground rhizomes. After a few years, the iris clump begins to lose its vigor, especially at the center. For the best flower production, it is good to divide and replant after flowering.

Dig up the clump and carefully disentangle the rhizomes. For replanting, select pieces of healthy rhizome, four to eight inches long, with some healthy roots and at least one crown and stem. Plant the rhizome horizontally at the same depth as the original clump. Cut back the leaves to about four inches to reduce water loss.

New leaves will be produced in the spring and it should flower that year as well.



CALEND

Regular Meetings of Plant Societies

A number of plant and horticultural groups meet fairly regularly at the Denver Botanic Gardens. Here is a listing of those groups and a general indication of when they usually meet. For more specific meeting times and locations as well as for information on how to contact a representative of the group, please call the Botanic Gardens switch-board during business hours at 575-3751.

African Violet Society, 4th Thurs. of 7 months; **Bonsai Society**, 1st & 3rd Tues.; **Cactus & Succulent Society**, 2nd Tues.; **Civic Garden Club**, 1st Fri.; **Colorado Native Plant Society**, 4th Wed.; **Gloxinia Gesneriad Growers**, 1st Sat.; **Hemerocallis Society**, 3rd Sun. of 4 months; **Ikebana International**, 4th Fri.; **Iris Society**, spring & fall dates; **Men's Garden Club**, 4th Thurs.; **Mycological Society**, 2nd Mon.; **Rock Garden Society**, 3rd Wed.; **Rose Society**, 2nd Thurs.; **Ultra Violet Club**, 4th Mon.; **Water Garden Society**, 2nd Sun. of 5 months.

*First meeting of a class with more than one session

5

Watercolor Society Show and Sale

6

Arranging Lessons with Fresh Flowers*

7

Young Audiences, Dry It. You'll Like It*, Nesting Birds at Golden Gate

8

Alpine Ecology*

12

19

Day Lily Show and Sale

13

20

14

21

15

New Members' Orientation, Columbine Field Trip

22

26

Field Trip to Mount Goliath, Tea Ceremony

27

28

29

2

Watercolor Society Show and Sale

9

The National Repertory Orchestra

16

Four-Legged High Altitude Creatures*

23

Hot Rize

30

August 20 & 21 Music from the Santa Fe Chamber Music Festival

August 20-22 Water Lily Symposium

3

Watercolor Society Show and Sale

10

The National Repertory Orchestra

17

Free Day for Denver City/County Residents

24

Hot Rize

31

August 24 Feasting on Edible Wild Plants*

4

Iris Society Rhizome Sale, Watercolor Society Show and Sale

11

Tea Ceremony, Ikebana Lessons*, Beginning Bonsai*, RMNP Field Trip

18

Further Techniques in Botanical Illustration*, Tundra Trip to Corona Pass

25

Terrace and Garden Tour

August 29 Members' Green Thumb Day

Coming Next Month

August 3 The Gardens Through Artists' Eyes

August 6 Music from the Aspen Music Festival

August 6-9 "Glass at the Gardens"

August 11 Chair Caning*

August 15-16 Mushroom Fair

August 20 Gentians Galore

Denver Botanic Gardens, Inc.
909 York Street
Denver, Colorado 80206
303-575-3751

July 1987

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Denver Botanic Gardens

August 1987

Number 87-8



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Water Lily Symposium August 20-22

Denver Botanic Gardens, in conjunction with the Colorado Water Garden Society, announces the Third Annual International Water Lily Symposium for August 20-22 at the Regency Hotel in Denver.

Noted experts from the United States, Australia and England will share their knowledge of landscaping with aquatic plants as well as propagation, hybridization and maintenance of these increasingly popular plants. Joseph Tomocik, Gardener Florist II responsible for our Aquatic Plant Display, will open the program with "The Water Plant Collections at Denver Botanic Gardens." Throughout the three days you will learn about "The World of Koi," "Pool Construction, Including Our Own," "The Worldwide Pollination Biology of Water Lilies" and much more.

A presymposium tour on August 19 is an optional opportunity to visit splashy local gardens. A \$20 fee includes transportation, lunch and handouts. A postsymposium tour to Rocky Mountain National Park includes a stop at Nymph Lake to see Colorado's yellow pond lily, *Nuphar luteum* ssp. *polysepalum*. This optional field trip is \$25 and includes transportation, lunch and guides.

Registration for members of the sponsoring organizations is \$140 and \$155 for non-members. You can attend individual days at \$35 each.

For a complete program and registration information call Andrew Pierce, Conference Chairman, at 575-3751, extension 18.

For Members Only— Green Thumb Day, Saturday, August 29

A new members-only event, Green Thumb Day, is planned for Saturday, August 29 at Denver Botanic Gardens. An expanded version of the former Annual Plant Giveaway, this is still your opportunity to pick up a plant of your choice as well as attend special activities and classes.

Choose from a variety of plants for all kinds of conditions. Outdoor selections include low water demand plants for dryland gardens, hardy trees and shrubs, and perennials for your rock garden.

Dryland plants include rabbitbrush,

Chrysothamnus nauseosus, and sagebrush, *Artemisia tridentata*. Two native trees will be available, dwarf native birch and native single-leaf ash. An assortment of campanulas, dianthus, penstemons, drabas and violas will suit your perennial border or rock garden. As in the past, choices will be made on a first come, first served basis.

Indoor selections include varieties of begonias, a trailing gesneriad, the smooth leaf century plant, Norfolk island pine and much more.

Late summer is the peak season for many of our outdoor display gardens and guides, including members from a variety of DBG-affiliated plant societies, will be

continued on page 4

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Garden Concert Schedule page 4

Classes for Adults page 7



*Victoria
amazonica*



Great Getaways

Keep the following tours to exciting and alluring destinations in mind when planning future vacations. For additional information on any of the trips, please contact DBG Assistant Director Andrew Pierce at 575-3751, extension 18.

Gardens of Paradise, October 3-11, 1987

There may still be some places left on this extraordinary tour to some of the world's lushest natural gardens, the Hawaiian Islands. Including specially arranged tours to private and public gardens and estates on Kauai and Hawaii, this tour packs alot of botanical variety into one week at the very reasonable price of \$1,665.

Gorgeous Galapagos, February-March, 1988

This always-popular destination features plants and animals in variety and profusion found nowhere else on Earth. The price will be approximately \$4,000 and it's not too early to express your interest. Contact Andrew Pierce at 575-3751, extension 18, to be added to the mailing list for future mailings.

Lure of the Orient, October 1988

Learn about the gardens and native flora of the Orient from our Executive Director, Merle Moore. Join him for three weeks in a part of the world he is comfortably familiar with. Call for trip details and cost.

Behind the Scenes at the Rose Parade, January, 1989

This will be a personal and intimate look at the flowers and people behind

the floats at the annual Rose Parade in Pasadena, California. Find out what it takes to put together the millions of flowers on the floats and make your own choice of the prizewinners. Tickets to the Rose Bowl Parade are included; game tickets may be optional. Watch for itinerary details and costs.

The Desert Blooms, Spring 1989

This reasonably priced (about \$1,000) motor tour through the American Southwest will reveal a beauty invisible from the highway. The seven to ten day trip will be

highlighted by frequent stops with short walks to observe the desert flora. Botanical experts will make identification easy.

Arctic Wild Flowers, June-July, 1989

This is an ambitious 21-day tour to the lands of the Midnight Sun above the Arctic Circle. Far from being barren and uninteresting, the land is filled with the drama of the tundra. Dr. Allan Taylor, linguistics professor at University of Colorado, is coordinating this adventure.

Tributes

In memory of Samuel Butler, Jr.

Mr. & Mrs. John C. Mitchell II

In memory of Rose Christensen

Margaret Wallace

In memory of William F. Clifford

Ultra Violet Club

In memory of Mr. & Mrs. Stewart Cosgriff

Mr. & Mrs. Charles C. Gates

In memory of Mary Lou Cutler

Alan E. Schwartz

In memory of Lucien Gignac

Mr. & Mrs. Richard Millard

In memory of Jonathan David Gilbert

Mr. & Mrs. Ken Gaunt

In memory of Robert M. O'Donnell

Mr. & Mrs. John C. Mitchell II

Jane Silverstein Ries

In memory of Charles E. Stanton

Mr. & Mrs. John C. Mitchell II

In memory of Mrs. Mary B. Sweeney

Mr. & Mrs. John C. Mitchell II

In memory of Milton Warren

Jane Silverstein Ries

In memory of Louise Wolf

Mr. & Mrs. John O. Collins, Jr.

Mr. & Mrs. John P. Cran

Mr. & Mrs. Frederick A. Gill

Mr. & Mrs. Thomas R. Gould

Green Thumb News

Number 87-8 August 1987

Published monthly by the Denver Botanic Gardens Education department, 909 York Street, Denver, Colorado 80206, and edited by Patricia A. Pachuta and Carolyn Knepp. Subscription to this newsletter is a benefit of membership in the Botanic Gardens. For membership information, please write the Membership department at the above address or call 575-3751.

Deadlines for this newsletter are: Major news stories, feature material (including photographs or artwork), and short notes are all due not later than July 20 for September, August 19 for October and September 18 for November.

Please plan in advance and meet deadlines. Late material cannot be used. Stories must be typed, double-spaced, preferably on copy paper provided by the editor. Please call the Education department at 575-3751 for details.



1987 College Intern Program Underway

While the first crocus signals the start of spring and the end of winter, summer is heralded at the Gardens by the first day of the College Intern Program in applied horticulture. The internship is an annual 10-week program that offers college students an opportunity to gain practical, hands-on experience in a public display garden.

The competition was keener this year than in previous years since limited funding permitted only four interns. Each of the students has a strong academic record and an employment background that includes other horticultural experience. They began June 15 and will be here until August 21.

Please greet them if you see them on one of your visits. They will be working in all indoor and outdoor collections as well as in some of the Gardens' other departments such as the Library. The 1987 college interns are:

Jeffrey Anderson, New Mexico State University, is the present curator of his school's Botanical Garden. He hopes to open his own nursery in New Mexico. Jeff claims to be especially interested in irises, although a short conversation with him can uncover many other interests including drought-tolerant plants. He expects to graduate in May 1989 with a B.S. in horticulture.

Ray Daugherty, Colorado State University, is studying landscape horticulture and intends to graduate next spring with a bachelor's degree. His special interests include plant breeding and native plants and he hopes to pursue a career in plant breeding or propagation. Ray has designed and installed several new perennial beds at CSU.

Craig Hertoghe, Eastern Montana College (Billings, Montana), plans to complete his master of science degree in horticulture by June of 1990. His bachelor's degree in biology is from Northern Montana College. Craig is seeking practical experience that will assist him in becoming a horticulturist for a botanical garden.

Alana Thrower, University of Colorado at Colorado Springs, will graduate with a bachelor's degree in biology in May 1989. She currently holds an associate's degree in urban horticulture and is a partner in "The Plant Plant," a small business that specializes in producing herb plants. Alana's career pursuits involve "research to develop better plant varieties for food and beauty."



1987 College Interns: (from left to right) Ray Daugherty, Jeff Anderson, Craig Hertoghe and Alana Thrower

1986 Annual Report Now Available

Extra copies of the 1986 Annual Report have been printed especially for members who would like a copy. To request one, please write to the Membership Secretary at Denver Botanic Gardens, 909 York Street, Denver, Colorado 80206.

Information Desk Volunteers Needed

Visitors to Denver Botanic Gardens find a warm, friendly smile accompanied by answers to their questions—all readily available at our Lobby Court Information Desk. If you would like to become one of our "good-will ambassadors" at the Information Desk, please call the Membership office, 575-3751, extension 22, for further details.

It's Mushroom Time Again

On Sunday, August 16 from 11 a.m. to 4 p.m. the mycologists again appear in John C. Mitchell II Hall at Denver Botanic Gardens. Once a year the Mushroom Fair is held and every year mushrooms are identified that have never before been seen in Colorado.

Dr. Harry Thiers, Professor of Mycology at San Francisco State University, will be on hand to identify mushroom species. Last year more than 600 people attended the fair and learned about the amazing world of fungi.

There are 250 members of the Colorado Mycological Society from all parts of the state. Family memberships in the society are \$15 and applications will be available at the door.

4 August and September Concert Schedule

Concertgoers have been treated to delightful evenings at the Gardens this summer. They have dined among the roses, water lilies and violins during several wonderful performances at the Garden Concert Series. Presented by United Bank of Denver, KCFR and DBG, the series began with The Boulder Bassoon Band and will conclude on September 4 with The Denver Chamber Orchestra. Tickets go on sale this month for the following performances:

Music From the Santa Fe Chamber Music Festival

Thursday, August 20 or Friday, August 21 at 7 p.m. (rain date—Saturday, August 22 at 10 a.m.) Gates open at 5:30 p.m. *Tickets go on sale starting Monday, August 10.* Take your choice! Thursday the Quintet will be joined by Astor Piazzolla and his New Tango Quintet for an evening of lighthearted music and on Friday the Quintet (alone) performs serious classical music.

The Denver Chamber Orchestra

Thursday, September 3 or Friday, September 4 at 7 p.m. (rain date—Sunday, September 6 at 10 a.m.) Gates open at 5:30 p.m. *Tickets go on sale starting Monday, August 24.* Maestro JoAnne Falletta and the Denver Chamber Orchestra close the summer season with favorites from Dvorak, Vivaldi and Beethoven.

Complete details on fees and where to obtain tickets were provided in the *June Green Thumb News*. This information can also be obtained by calling 575-3751.

JoAnne Falletta conducts The Denver Chamber Orchestra.



Concerts: More Parking and Food Available

Additional parking for the 1987 Summer Garden Concert Series is being provided this year.

The Cheesman Park entrance into the Gardens has been opened and concertgoers can leave their cars in the park during concerts without fear of being ticketed.

Parking in the Cherry Creek Shopping Center, south of Columbia Savings on Cherry Creek North Drive, is available. Free shuttle buses will take you to the Gardens, leaving every 10 minutes starting at 5:15 for the August 6 concert (starting 4:45 p.m. for the August 20-21 and September 3-4 concerts) and beginning immediately following the concerts for your return to Cherry Creek. Complete details will be provided with your tickets.

You no longer need to carry a picnic. Picnic suppers can be ordered at FBC Foods International by the weekend prior to the concert and you can pick up your dinner inside the Gardens near the south gate. DBG/KCFR receives a percentage of the sale of these picnics. FBC has put together some thoroughly tempting menus for this occasion. At a previous concert one picnic meal contained a summer salad (vegetarian combo), marinated steamed artichoke with a dipping sauce, croissant and pastry. The menus vary from concert to concert with several selections from which to choose. Call 832-6800 to place an order and pick up your picnic supper between 6:00 and 7:30 p.m. on concert night.

For Members Only—

continued from page 1

available to answer questions. Raptor Society demonstrations will intrigue children and members of our horticultural staff will teach special classes.

Three different classes, each an hour and a half long, will be held in John C. Mitchell II Hall. At 10 a.m. Rock Alpine Garden Curator Panayoti Kelaidis will present, "Minor Bulbs Strike a Major Note," an introduction to exotic bulbous plants.

Botanist-Horticulturist Gayle Weinstein, in "Low Water Demand Plants," will discuss dryland alternatives to traditional landscaping at noon.

Gardener Florist II Gary Davis offers his popular "Jungle Gems" at 2 p.m. for indoor gardeners desiring information on distinctive yet easy to maintain foliage plants.

Classes are \$2.50 each for members and non-members may participate by paying \$5.00 per class. Register by completing the Education department registration form on page 8. A "plant check" in one of the classrooms will allow you to store your plants during the other activities of the day.

Bring your membership card to gain admittance to the Gardens and the plant coupon found on page 5. Pack a family picnic and plan to spend the day at the Gardens. Plant Giveaway hours are from 9 to 4:30.

Glass Artists' Fellowship Show August 6-9

Sunshine will take on a new glow as it is filtered through the windows of John C. Mitchell II Hall at the Gardens August 6 through August 9 when the Glass Artist's Fellowship presents their eighth annual "Glass at the Gardens" exhibit.

This show and sale attracted 9,000 enthusiastic people in 1986 and the 1987 show should be even better. Hailed as the largest exhibit of original stained glass by Rocky Mountain artists, this once-a-year show should not be missed. At 9 a.m. each day the show will open to the public and will close at 4:45 p.m. on Friday and Sunday. Evening hours apply Saturday, August 8 when the show remains open until dusk. Concertgoers on Thursday, August 6 will have additional opportunities to enjoy this beautiful collection of glass art while enjoying "Music from the Aspen Music Festival: The American Brass Quintet with the Aspen Brass."

Green Thumb Day

Saturday

August 29

1987

Stroll the Gardens, attend a short class, sample herbal cookies prepared by the DBG Guild and watch a raptor demonstration.

Plant Giveaway — 9 a.m. to 4:30 p.m. (Don't forget the coupon below.)

Classes — \$2.50 each for members \$5.00 each for non-members. Use the Education department form on page 8 to register.

10 to 11:30 a.m.
"Minor Bulbs Strike a Major Note"
by Rock Alpine Garden Curator
Panayoti Kelaidis.

12 to 1:30 p.m.
"Low Water Demand Plants" by
Botanist-Horticulturist Gayle
Weinstein

2 to 3:30 p.m.
"Jungle Gems" by Gardener
Florist II Gary Davis

Green Thumb Day Coupon

This coupon entitles you to one free plant per membership. Please complete the following information before making your selection, cut it out and exchange it for your plant on Green Thumb Day.

Name _____
(as it appears on your card)

Address _____

City _____ State _____ Zip _____

Have you participated in the Members' Plant Giveaway before? _____ Yes _____ No

Do you enjoy this benefit? _____ Yes _____ No

Membership Category _____ Student _____ Senior _____ Individual _____ Family/Dual _____ Other

6 Ramses II Comes to Denver

Denver Botanic Gardens will feature a botanical version of Ramses II while the Museum of Natural History offers "A Pharaoh and His Time."

"Biblical Plants: The Reign of Ramses II" will begin September 15 and conclude on November 19. The Lobby Court will be transformed into an "Egyptian Oasis" from September 15 through mid-October followed by "The Bounty of the Nile," an exhibit featuring foods and spices from 1300 B.C.

Botanist-Horticulturist Gayle Weinstein will provide overviews of DBG's various Mediterranean water plants and herbs when she takes groups of 20 on walks through our Scripture Garden. Two identical tours will be offered, Section I on Saturday, September 19 and Section II on Tuesday, September 22, both starting at 1 p.m. and lasting 45 minutes. To register, complete the Education department registration form on page 8 and mail along with a check for \$1.50 for participation.

Beginning in October, classes are planned to introduce students to the Egyptian arts of making paper with papyrus and baskets with bulrushes. Watch the September *Green Thumb News* for details on these and other special events of "Biblical Plants: The Reign of Ramses II."

Thanks to Joslins

Many thanks go to Joslins for providing the signs at each of the gardens on the Guild's Terrace and Garden tour on July 25. In the past, The Denver Dry Goods had worked with the Guild and Joslins happily filled that void this year.

Nearly 60 children and children-at-heart came to our Rose Garden to see *Snow White and Dopey* on June 25. A certificate for 100 'Snow White' rose bushes was presented to John Mrozek, Denver's Manager of Public Works.



Fifth Annual Festival of Asian Arts and Culture

The Festival of Asian Arts and Culture, previously held at Denver Botanic Gardens in August, has moved to a new site.

This year's spectacular two-day event will be held Saturday and Sunday, August 29-30 at the Galleria, Boettcher Concert Hall and the DCPA Park on 14th and Curtis.

Each day will be filled with a wide variety of free activities which will include a merchant mart, food mart, workshops, martial arts demonstrations, dance troupes, art exhibits and a folk village.

"Harmony of the Orient," an evening of Korean, Japanese and Chinese song and dance, will be presented in Boettcher Concert Hall. Tickets for this performance are \$10 for adults and \$5 for children.

Additional information may be obtained by calling the Asian American Foundation at 355-0703.

Bicentennial Celebration September 17

The bicentennial celebration of the United States' Constitution is taking place throughout the country on Thursday, September 17, 1987.

The bicentennial celebration in Denver is happening at Denver Botanic Gardens. John Lindsay, news anchor and host on Channel 7 (KMGH-TV), will read portions of the Constitution at Anna's Overlook, near the southwest corner of the amphitheater, at noon. Red, white and blue flowers have been planted for the occasion and nearly 50 percent of the plants and flowers found at Thomas Jefferson's Monticello home grow at the Botanic Gardens. Also, our Herb Garden contains many of the herbs popular during the 18th century in the New World. On the 17th, the original 13-star flag will fly from the DBG flagpole.

It is fitting in many ways that the bicentennial party will take place at the Gardens. Thomas Jefferson was quoted as saying, "When I leave the White House, I think I'll become a florist."

Colorado Water Garden Society to Meet August 9

The Colorado Water Garden Society will gather on Sunday, August 9 to tour the gardens and pools of four members. The event will culminate with a picnic at the last site in the Indian Hills area.

The membership chairperson of the group is Mary Mirgon, 922-9559. Tour reservations will be taken by Arlyn Martens, 740-9009.

Flag raising by Girl Scouts of America Troop 1029 Color Guard. This year's Flag Day celebration marked the 25th annual presentation of a new U.S. flag to DBG by the Colorado chapter of the National Society of the Daughters of the American Revolution.



The Gardens Through Artists' Eyes: A Botanical Illustration Workshop

(four sessions)

**Monday through Thursday,
August 3, 4, 5, 6
10 a.m. to 3 p.m. Classroom B**

Spend four happy days enjoying the Gardens at their peak under the guidance of two professional artists. In the mornings, students will tour the grounds and greenhouses with renowned artist and gardener Rob Proctor. Emphasis will be placed on the colors, textures and contrasts of the glorious flowering plants of summer.

Following a picnic lunch in a shaded glade, an intensive drawing workshop will begin. Experienced illustrator and instructor Angela Overy will teach beginners how to draw a flower in just four days.

Drawing pad and pencils will be provided; students should bring lunch as well as additional colored pencils and watercolors if desired.

Instructors: Angela Overy received her National Diploma of Design from London University, England, and designed in London, New York and San Francisco before settling in Denver. She has taught at DBG for seven years.

Rob Proctor is a Boettcher scholar who studied at the University of Colorado. He has held one-man shows in three countries and his botanical drawings and watercolors hang in many collections throughout the world.

Fee: \$86 members/\$94 non-members (includes \$6 for materials)

Plant Life Field Trip: Reynolds Park

(one session)

**Wednesday, August 19
9 a.m. to 4 p.m.**

Come and enjoy the profusion of wild flowers in one of Jefferson County's most interesting and varied Open Space Parks. The park is a short distance south of Conifer in a ponderosa pine forest. Participants can expect to see harebells, golden asters, pink bergamot, fireweed, tassel flowers and owl's clover.

Please bring a lunch and drinking water.

Meet: at 9 a.m. in the Denver Botanic Gardens main parking lot to carpool and receive directions. Participants will share gasoline expenses. at DBG.

Leader: Mary Edwards is an enthusiastic botanist who volunteers in the Karthyn Kalmbach Herbarium at DBG.

Fee: \$2 per person

Limit: 20

Gentians Galore

(one session)

**Thursday, August 20
8 a.m. to 4:30 p.m.**

Come on an easy walk to see a spectacular meadow full of gorgeous gentians. Use a key to learn to identify three or four different kinds as well as other plants such as pyrolas.

The group will visit a site in Rocky Mountain National Park to observe subalpine plants and their communities. Information on some edible plants, such as mountain ash and elderberry, will also be provided.

Please bring your lunch, water, sunscreen, comfortable walking shoes, sweater or light jacket, rain gear and binoculars, if you have them. William Weber's *Rocky Mountain Flora* or one of Ruth Ashton Nelson's plant guides would also be useful.

Leader: Tina Jones

Meet: promptly at 8 a.m. in the main DBG parking lot to carpool and receive directions. Please note that each car entering the park must pay a \$5 admission fee in addition to the class charge.

Fee: \$7.50 members/\$8.25 non-members

Limit: 20

Late Bloomers

(one session)

**Wednesday, September 9
8 a.m. to 2 p.m.**

Enjoy the flowers of late summer on a field trip to several locations just south of Boulder. Identify late bloomers such as sunflowers, gay feathers, asters, snakeweed and other plants of the upper plains region. In addition to identification skills, participants will learn about animal uses of plant fruits and seeds.

Find out what birds dine on mullein and sage and understand why cheatgrass and rabbitbrush are not favored fare of most animals. This field trip is an easy, one-mile saunter.

Bring binoculars, your favorite botanical field guide, lunch, drinking water, sunscreen, hat, walking shoes and rain gear.

Meet: At the main DBG parking lot at 8 a.m. to carpool. Or, call the Education department at 575-3751, extension 20, if you prefer to meet the group in Boulder at 8:45 a.m.

Leader: Tina Jones, popular field trip leader and naturalist, studied alpine ecosystems at the University of Colorado, Boulder, Research Center outside of Ward, Colorado.

Fee: \$7.50 members/\$8.25 non-members

Limit: 20

Golden Aspens and their Ecology

(two sessions)

**Wednesday, September 16 from 7
to 9 p.m. in
Classroom C
Sunday, September 20, field trip
from 1 to 5 p.m.**

This is the time of year when the quaking aspen leaves are golden. Learn about the natural history of aspen clones, what animals are associated with them and their North American Indian uses.

The first session is an introductory slide lecture followed by a field trip with an easy walk at Golden Gate Canyon State Park.

Eat your lunch beforehand and remember to bring drinking water, comfortable shoes, rain gear, warm jacket, sunscreen and notepad. Binoculars and cameras are optional.

Meet: promptly at 1 p.m. at DBG's main parking lot to carpool. Or, meet the group at 1:40 p.m. in the main information building at Golden Gate Canyon State Park. Please note that there is a \$3 daily user fee per car entering the park in addition to the field trip fee.

Instructor: Tina Jones

Fee: \$15 members/\$16.50 non-members

Limit: 20

Feasting on Edible Wild Plants

(two sessions)

**Monday, August 24 from 6 to 9 p.m.
Saturday, August 29 from 9 a.m.
to 3:30 p.m.**

Morrison Center

Have you ever tasted tempura milkweed or yucca flowers? How about baked roots of cattail? Learn about some of the common wild edible plants of Colorado and actually cook and sample them.

In the first session, students will learn how to identify both edible and poisonous plants in the classroom and the field. Participants will cook and feast on these wild treats in the morning of the second meeting before a short field trip in the afternoon.

Come to the first class prepared for wet feet (preferably with an old pair of sneakers). Bring an appetite for the morning tasting session of the second class along with a snack for a late lunch.

Instructor: Tina Jones

Fee: \$15 members/\$16.50 non-members

CTASSETS

Summer
1987
Denver Botanic Gardens



Summer Cooking with Herbs

(three sessions)

Wednesdays, August 5, 12, 19
6:30 to 8:30 p.m. Morrison Center

Learn to use fresh herbs to add zest and variety to your cooking in this hands-on course. Students will learn various techniques of herb cookery as they prepare appetizers, soups, salads and main dishes to be eaten at the conclusion of class. The recipes chosen will be easily prepared and will emphasize fresh produce.

Sample grilled Cornish hens with rosemary and thyme, salmon mousse with dill sauce, pasta and fresh pesto, cold sorrel soup as well as a host of seasonal salads and vegetables.

Please bring an apron and a sharp knife to class.

Instructor: Pat Pachuta is Education Director at DBG; she is an avid herb gardener and an enthusiastic cook.

Fee: \$39 members/\$43 non-members (includes \$15 for three dinners)

Limit: 12

Flowers, Insects and Pollination

(two sessions) Classroom C

Tuesday, August 25
6:30 to 8:30 p.m.
and Sunday, August 30
9 a.m. to noon

Learn about the fascinating partnership of insects and flowers in this introductory course. Find out how butterflies, honeybees, moths, bats, birds and flies benefit flowers. Topics to be covered include: nectar-collecting, insect scent and smelling, pollination and pollination techniques, flower colors as attractants and floral nectar guides.

The course consists of a slide lecture on Tuesday; on Sunday, students will meet briefly indoors to be followed by a walk at the Gardens to observe specific interactions. Bring a hand lens if you have one.

Instructor: Tina Jones

Fee: \$16 members/\$17.50 non-members

Japanese Tea Ceremony

(one session) 2 to 3 p.m.

Section X: Sunday, August 16
Section XI: Saturday, August 22
Section XII: Sunday, September 13
Section XIII: Saturday, September 26

Tea House in DBG's Japanese Garden

Please indicate your section on the registration form.

Because of its emphasis on such concepts as harmony, respect, purity, tranquility and elegant simplicity, the tea ceremony has for centuries been considered the epitome of Japanese life. This is an opportunity to experience an authentic tea ceremony in the quiet splendor of our Japanese Garden.

Instructor: Kathryn Kawakami has done much to inform Denver area residents and students about the culture of Japan. She will be assisted by William Crowder who studied the Tea Ceremony in Japan at Ura Senke.

Fee: \$4.50 members/\$5 non-members

Chair Caning

(three sessions)

Tuesdays, August 11, 18, 25
7 to 9 p.m. Classroom B

Learn an age-old craft. Replace that sagging or broken seat in your hard cane, pressed cane, rush or reed chair. With homework, you'll be able to complete at least one project during this course.

No previous experience is necessary. Materials will cost approximately \$10-\$20 and can be purchased at the first session. The instructor will contact each student prior to class to discuss each project.

Instructor: Jill Goldberg is a self-proclaimed "cane addict" who learned the art from her mother. She has taught numerous courses and operates her own business, "The Able Caner."

Fee: \$24 members/\$26.50 non-members. Materials are purchased separately.

Limit: 10



Gardener Florist II Gary Davis discusses epiphytes with a group of Denver teachers.

Denver Botanic Gardens
909 York Street
Denver, Colorado 80206

Fees for courses should be paid in advance by check or money order made out to Denver Botanic Gardens. Since the space is limited in many courses, registration should be mailed in promptly. Your registration will NOT be acknowledged. Your name will be placed on the class list the day your money is received. No enrollments for class by phone please. All courses given are subject to a minimum enrollment of ten students. For further information, please call 575-3751.

Registration Form for Classes and Field Trips

The enclosed check, in the amount of _____, is to cover the registration fees for the following classes:

Name and section of classes _____

Name _____

Address _____

City _____ State _____ Zip _____

Home Tel. No. _____ Business Tel. No. _____

Member of Denver Botanic Gardens? ☐ Yes ☐ No

L I B R A R Y

L I N E S

Helen Fowler Library
Volume 10, No. 3
August 1987

Librarian:
Solange Gignac

NATIVE PLANTS OF GENESEE

Native Plants of Genesee

By James N. Borland. Illustrated
by Sylvia B. Brockner and Jeanne
R. Janish. Genesee Foundation,
Golden, Colorado, 1987. \$5.00. QK
150 B56 1987

This well-conceived booklet deals specifically with the woody plants growing within the boundaries of the Genesee development in the foothills west of Denver. *Native Plants of Genesee* will help the reader identify and then use these plants in a residential setting. Line drawings by Sylvia Brockner and Jeanne Janish accompany each of the 35 species described. The drawings are well-executed and should make identification very easy for the interested non-botanist.

A site analysis and planting guide of a typical home are included to help the reader visualize which plants are suited for various exposure and moisture situations. The index is excellent, listing both Latin and common names (as does the plant description listing). A pronunciation guide, list of wild flower species and a quick reference chart of plant characteristics (food for wildlife and fall colors are examples) as well as planting instructions are included in the back of the book.

A final helpful feature is the inclusion of a list of 26 different nurseries selling some or all of the species listed and described. This booklet is well worth the small cost as it provides accurate and easy to use information about a variety of native plants suitable for both foothills and high plains planting. After the initial one or two years for establishment, these Colorado woody natives can do very well with little or no supplemental watering. *Native Plants of Genesee* is available in the Gift Shop at the Gardens.

THE REVIEWERS:

Rod Haenni—
owner of
Winter
Country
Cacti, a local
hardy
succulent
nursery

Panayoti
Kelaidis—curator
of DBG's Rock
Alpine
Garden

Avalonne
Kosanke—master
flower judge,
flower
arranging
instructor at
DBG

Plant Profile		Features									
		to 50'	to 100'	to 150'	to 200'	to 250'	to 300'	to 350'	to 400'	to 450'	to 500'
Native Plants of Genesee											
Tree	Colorado Blue Spruce (<i>Picea pungens</i>)	to 50'	•								
	Douglas Fir (<i>Pseudotsuga menziesii</i>)	to 130'	•								
	Ponderosa Pine (<i>Pinus ponderosa</i>)	45-150'	•								
	Quaking Aspen (<i>Populus tremuloides</i>)	to 90'	•								
	Rocky Mountain Juniper (<i>Juniperus scopulorum</i>)	20-30'	•								
	Wet Birch (<i>Betula fontinalis</i>)	to 30'	•								
	Western Chokeberry (<i>Prunus virginiana</i>)	to 30'	•								
	Bald Willow (<i>Salix babingtonii</i>)	8-9'	•								
	Boulder Raspberry (<i>Rubus deliciosus</i>)	9'	•	•	•	•	•	•	•	•	•
	Gambel Scrub Oak (<i>Quercus gambelii</i>)	3-5' or more	•								
Shrub	Mountain Mahogany (<i>Cercocarpus montanus</i>)	4-6'	•								
	Rocky Mountain Maple (<i>Acer glabrum</i>)	6-18'	•								
	Sandbar Willow (<i>Salix interior</i>)	3-15'	•								
	Sandbar Willow (<i>Salix exigua</i>)	3-12'	•								
	Slender Willow (<i>Salix exigua</i>)	6-12'	•								
	Thimbleberry (<i>Rubus parviflorus</i>)	4-6'	•								
	Twinnery (<i>Lonicera involucrata</i>)	9'	•								
	Common Snowberry (<i>Symphoricarpos albus</i>)	1-3'	•								
	Golden Currant (<i>Ribes aureum</i>)	4'	•								
	Mountain Ninebark (<i>Physocarpus monogynus</i>)	3'	•								
Small Shrub	Mountain Snowberry (<i>Symphoricarpos oreophilus</i>)	3'	•								
	Shrubby Cinquilloid (<i>Potentilla fruticosa</i>)	2-3'	•								
	Squaw Currant (<i>Ribes cereum</i>)	3-4'	•								
	Waxflower (<i>Jamnesia americana</i>)	3-4' or to 6'	•								
	Western Snowberry (<i>Symphoricarpos occidentalis</i>)	2-4'	•								
	Woods Rose (<i>Rosa woodsii</i>)	3-9'	•								
	Yucca Great Plains (<i>Yucca glauca</i>)	3'	•								
	Buckbrush (<i>Ceanothus fendleri</i>)	1-2 1/2'	•								
	Common Juniper (<i>Juniperus communis</i>)	to 3'	•								
	Prickly Rose (<i>Rosa acicularis</i>)	1-2 1/2'	•								
Ground Cover	Rabbitbrush (<i>Chrysothamnus nauseosus</i>)	2-3'	•								
	Three leaf Sumac (<i>Rhus trilobata</i>)	1 1/2-2'	•								
	Creeping Mahonia (<i>Mahonia repens</i>)	12"	•								
	Fringed Sage (<i>Artemisia frigida</i>)	8"	•								
	Kinnikinnick (<i>Ericostaphylos uva-ursi</i>)	6"	•								
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* Refer to Native Plant Page

A Synoptic Guide to the Genus *Primula*

By G. K. Fenderson. Allen Press, Inc., Lawrence, Kansas. 1986. \$40.00. QK 495 P95F4 1986

Webster's *New Collegiate Dictionary* tells us that synoptic means "affording a synopsis, or general view of a whole." To most people, this would imply a rather discursive, superficial treatment of a large subject.

Primroses are certainly a large subject: Fenderson lists almost 500 species (and hundreds of synonyms and infraspecific taxa), only a fraction of which are represented in North American herbaria. Fenderson freely admits that he has no access to the largest scientific collections of *Primula*, and is primarily interested in their cultivation.

This book might be described as a horticulturist's summarization of recent botanical literature on the genus.

Indeed, aside from a short preface, a scientific index and a subject index, the book really consists of only three parts—a breakdown of the genus by sectional divisions that were created by Smith and Fletcher. The meat of the book is a long, alphabetical listing of all the species and synonymms including citations of date and place of publication; the region where each primrose was found; its section along with a short description of its habitat (culled for the most part from the Smith and Fletcher monograph); and ending with a description of the flower color.

The last section of the book consists of 57 line drawings of various species of primroses—mostly species unknown or infrequent in cultivation. It's possible that Mr. Fenderson drew some of these from life, however, they are rather schematic in their design and look suspiciously as if they might have been drawn from herbarium specimens or even photographs.

Primula is a very important genus of plants for montane or maritime climates. This is certainly an up-to-date resource for a keen student of the genus who wants current information about seed offered by a seed exchange or some unusual plant offered by a specialist nursery.

A gardener interested in growing a few primroses would do better to look up Doretta Klaber's *Primroses for Your Garden*, which has real information, garnered from real plants. And all the drawings in *that* book are drawn from life.

Panayoti Kelaidis

The Flower Arranger's Handbook: 1,000 Varieties of Flowers and Foliage Arranged By Color

By John Dale and Kevin Gunnell. E.P. Dutton, New York, 1986. \$22.50 SB 449 D31986.

Here is a book to delight and enhance the work of both arranger and horticulturist. The arranger, particularly, has found few books of really inspiring quality in recent years.

Flower arrangers will appreciate the comprehensive review of mechanics and containers and will be intrigued by tips and techniques for conditioning and maintaining cut plant materials. The section titled "Shape and Design" reveals the authors' superb mastery of design principles and techniques. Rules are generously interspersed with suggestions for choosing and using expressive materials in traditional to modern designs.

The beginning arranger, however, may find that the long, unbroken pages of this section are difficult to follow. In a section so beautifully written, line drawings to illustrate key points would certainly have been useful. Further, in a book otherwise so lavish in colored illustrations, this section is by contrast visually impoverished.

"Encyclopedia of Plants" is a section that definitely dominates the book, and here nothing is stinted. Countless color plates of excellent quality invite the reader to linger over the information. Both common and botanical names are given. (Could pronunciation have been included?) A concise, at-a-glance panel of symbols heads each entry giving both grower and arranger a quick review of each plant's qualities.

The plates have been categorized according to their dominant colors, and this color is highlighted in the upper corner of each page for easy reference. Both cultivation and propagation have been carefully detailed. The arranger is reminded of when and how to cut the material properly and is given precise instructions for its conditioning and maintenance in the arrangement. The authors include many ideas on compatible plant materials, container suggestions and color notes. If the material is a likely candidate for preservation, the various methods are explained. If the authors have found preservation doubtful or troublesome, this is also noted.

The hands-on experience of both authors enhances every section of this book and increases its value as a reference guide. As grower, arranger, teacher and reviewer, I am delighted to add *The Flower Arranger's Handbook* to my reference library. It is now available in the Gift Shop at the Gardens.

Avalonne Kosanke



Caudiciform and Pachycaul Succulents

By Gordon D. Rowley. Strawberry Press, Mill Valley, California, 1987. \$52.00. SB 438 R694Ca 1987

A group of unusual succulent and xerophytic plants representing about 40 different families and over 100 different genera is described in a thorough and entertaining fashion by Mr. Rowley. He previously wrote *The Illustrated Encyclopedia of Succulents* (1980) and is well-known for his world-class library on succulent plants.

Caudiciforms and pachycauls have adapted to climates with prolonged or periodic droughts by developing either an enlarged water storage organ (a caudex) or by enlarging stems and/or trunks to the point of "obesity" (a pachycaul). The hundreds of color photographs of these bizarre plants are exquisite and uniformly excellent.

The encyclopedic nature of this book makes it indispensable for the succulent enthusiast as well as those interested in learning more about some of the world's strangest-looking plants. General culture and propagation are described as well as economic uses (foods and medicines). Rowley even describes some hardy caudiciforms and pachycauls, especially species of *Lewisia*, *Rhodiola* and *Crassula* (all grown at DBG).

Gordon Rowley's tongue-in-cheek style of writing and his use of appropriate quotes ("A feast of fat things," Isaiah 25:6) to begin each chapter makes it easy to read this book straight through. I highly recommend the experience.

Rod Haenni

Gardening Tips for August by the Drs. Green

This Month

In August, Colorado gardeners reap the growing rewards of their spring labors. Summer crop harvest comes into full swing as tomatoes mature to peak production and the vegetable patch yields its first sweet corn, bell peppers and cantaloupes. Zucchini and other summer squash seem to be multiplying almost as fast as some of our garden insects. How can the home gardener make the most of this hard-won bounty?

We have gleaned the following harvest hints from our Community Gardens Coordinator, Lynn Thompson. Pick zucchini small—just as the blossoms have withered on the tips of the fruit. Smaller fruit means less fruit per plant, an important help when most gardeners are scouring the weekly food columns for innovative ways to use their excess zucchini. At this tender stage, squashes are excellent eaten raw, neatly cut into sticks or diced into salads.

To test corn for ripeness: Wait until the silks have just dried at the tip of the ear and feel to make sure the end is full. Peel back a narrow portion of the shuck and press a kernel firmly with your fingernail. The kernel should burst and yield a milky fluid. If the kernel is solid, the corn is too mature for fresh use but can still be salvaged for fritters or dishes that require baking.

Beans should be picked early in the day when their foliage is dry. Harvest when the pods have reached full length but before they have begun to swell with outlines of the developing seeds within. If not caught when tender, green beans can be allowed to mature further to be harvested as “shelly beans,” a stage when the seeds are quite firm but not yet dried and hard. Shelled from their pods, their flavor is rich and buttery and their texture suits them well for soups and stews.

There are other gardening rewards in August besides these gastronomic pleasures. Summer annuals and many other flowers are in mature glory. Late summer is a time to stroll the garden for quiet satisfaction.

Strollers here at Denver Botanic Gardens have discovered the delights of our extended evening hours on Wednesdays, Saturdays and Sundays, when both the Grounds and Conservatory are open until dusk.

In August the water lilies are at their spectacular best. This year, especially, they are not to be missed. In conjunction with the 3rd Annual International Water Lily Symposium, additional small pools with many different aquatic and bog plants have been added to the area just east of our Aquatic Plant Display Area. Planned with the home gardener in mind, these pools offer many ideas.

Summer annuals are also at their peak in August. The warm weather of spring and its abundant rainfall have nudged these plants into an early and splendid show.

Visitors are urged to notice the many ornamental grasses used in these and other displays. Long overlooked, grasses have assumed an increasingly important role in Colorado landscapes lately. Often, the unique texture, color or shape of an ornamental grass makes it the perfect choice for a difficult landscape problem.

Q *The zinnias on the south side of my garage are covered with a white powder and are not doing well this year. What is it and what can I do?*

A Your zinnias are being attacked by powdery mildew. Not a true mildew borne of dampness, this fungus thrives in the hot, still conditions of summer gardens and close greenhouses. Control it by spraying your plants daily with a strong spray of water or apply a fungicide containing benomyl. Other plants threatened by powdery mildew are begonias, zucchini and Virginia creeper, *Parthenocissus quinquefolia*.

Q *Why isn't my Colorado blue spruce blue?*

A Since these trees (*Picea pungens*) are propagated by seed collected from selected stands, usually growing in the wild, they are bound to show their natural genetic differences. Some will be bluer than others; some may not be very blue at all.

Botanist-Horticulturist Gayle Weinstein mentions that if the tree was once blue, the temporary absence of color may be caused by the use of an insecticide. The carrier in it (the liquid in which the pesticide compound is held in solution or suspension) may have dissolved the waxy coating or bloom that gives the needles their characteristic blue sheen. Incidentally, this “bloom” may be more familiar to you as the outer coating on plums and blueberries.

Q *How can I dry my birdhouse gourds so they won't rot?*

A All gourds must be allowed to ripen fully on their vines before they're picked for curing. Since most are long-season fruits, the seeds should be started indoors and then planted outside when the weather is securely frost-free.

After picking, dip or wash the gourds in a five percent chlorine bleach solution (one part bleach to 20 parts water) to kill the spores of destructive organisms. The gourds should then be placed in a dry, airy sunny place for about a week. Turn them occasionally to cure them evenly. Store when absolutely dry, unwaxed and unvarnished.

Q *Last year my tulip bulbs arrived before I was ready to plant them. I have ordered even more this year and want to be prepared when they arrive early. What is the best way to store them until they are in the ground?*

A Tulips, daffodils, crocus and other spring-flowering “bulbs” are dug and shipped before their late summer dormancy and should be kept in this stage until planting. Store them in a dark location away from dampness where the temperature doesn't fluctuate much from 60 to 70 degrees. Do not refrigerate since chilling would encourage the bulb to enter another active phase of its growth cycle. By keeping the bulbs dormant, however, you can postpone planting a couple of months.

Q *Most of my tomatoes are spoiled by a dark rot on the bottom. What can I do to achieve picture-perfect fruit?*

A If the damage is only on the outer end of the fruit, the problem is not a rot at all, even though that's what it's usually called: blossom end rot. This is a condition caused by acidic soil—rarely a problem in our area—or uneven soil moisture.

To correct it, mulch your tomato plants heavily with compost or stable cleanings to keep the soil moisture constant. Next year, do this in early July.

The Drs. Green welcome your comments and questions for possible inclusion in this column. Please contact them by writing: Drs. Green, Denver Botanic Gardens, 909 York Street, Denver, Colorado 80206.

C AUG

A L E N D A R
S M T W T F S

**First meeting of a class with more than one session*

2
Denver Artists Guild Show and Sale

3
The Gardens Through Artists' Eyes*

4

5
Summer Cooking with Herbs*

6
Glass at the Gardens, Music from the Aspen Music Festival

7
Glass at the Gardens

8
Glass at the Gardens

9
Glass at the Gardens

10

11
Chair Caning*

12

13

14

15

16
Mushroom Fair

17

18

19
Plant Life Field Trip: Reynolds Park

20
Water Lily Symposium, Santa Fe Chamber Music Festival, Gentians Galore

21
Music from the Santa Fe Chamber Music Festival

22
Tea Ceremony

23

24
Feasting on Edible Wild Plants*

25
Flowers, Insects and Pollination*

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29
Members' Green Thumb Day

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Coming Next Month

September 3-4
The Denver Chamber Orchestra

September 5
Men's Garden Club of Denver Plant & Produce Sale

September 9
Late Bloomers

September 15
Ramses II at DBG Begins

September 16
Golden Aspens and their Ecology*

September 17
Free Day for Denver City/County Residents, Bicentennial Celebration

Denver Botanic Gardens, Inc.
909 York Street
Denver, Colorado 80206
303-575-3751

Members' Green Thumb Day page 5

August 1987

TIME VALUE

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Regular Meetings of Plant Societies

A number of plant and horticultural groups meet fairly regularly at the Denver Botanic Gardens. Here is a listing of those groups and a general indication of when they usually meet. For more specific meeting times and locations as well as for information on how to contact a representative of the group, please call the Botanic Gardens switchboard during business hours at 575-3751.

African Violet Society, 4th Thurs. of 7 months; **Bonsai Society**, 1st & 3rd Tues.; **Cactus & Succulent Society**, 2nd Tues.; **Civic Garden Club**, 1st Fri.; **Colorado Native Plant Society**, 4th Wed.; **Gloxinia Gesneriad Growers**, 1st Sat.; **Hemerocallis Society**, 3rd Sun. of 4 months; **Ikebana International**, 4th Fri.; **Iris Society**, spring & fall dates; **Men's Garden Club**, 4th Thurs.; **Mycological Society**, 2nd Mon.; **Rock Garden Society**, 3rd Wed.; **Rose Society**, 2nd Thurs.; **Ultra Violet Club**, 4th Mon.; **Water Garden Society**, 2nd Sun. of 5 months.



NEWS

Denver Botanic Gardens
September 1987
Number 87—9



DBG Celebrates Bicentennial September 17

Denver Botanic Gardens is participating in a nationwide bicentennial celebration of the United States' Constitution on Thursday, September 17, 1987.

At noon former Governor Lamm will open the ceremonies. John Lindsay, news anchor and host on Channel 7 (KMGH-TV), will read excerpts from the Constitution on Anna's Overlook, near the southwest corner of the amphitheater. Some of the propositions that did not make it into the Constitution will be discussed. The Colorado Children's Chorale will provide 20 minutes of patriotic songs.

Flowers popular during the 18th century, and some used in the landscape of Thomas Jefferson's Monticello home, will be found growing at the Botanic Gardens. Red, white and blue flowers have also been planted for the occasion. On the 17th, the original 13-star flag will fly from DBG's flagpole.

Members, visitors and schools are invited to participate in this historic, bicentennial party. Non-members need only pay the gate admission fee, although the 17th is a free day for residents of Denver City and County. Schools should call 575-3751 extension 20, for group rates.

"Biblical Plants: The Reign of Ramses II" at DBG

Denver Botanic Gardens' "Biblical Plants: The Reign of Ramses II" begins September 15 and will complement the Museum of Natural History's presentation, "A Pharaoh and His Time" that begins October 18.

Ramses II (1291-1224 B.C.) was known as the master builder during the Pharonic era of Egypt. He created many great architectural works during his reign of 67 years. His contributions are easily observed throughout the world, including the United States.

What is not well-known about Ramses II was his respect for the beauty of flowers. He surrounded himself with colorful flowers creating oases in the Egyptian desert. Two lotuses native to Egypt, the white lotus and the blue lotus (*Nymphaea caerulea* and *N. lotus*) were frequently depicted on his monuments. Petals of lotuses were found in the funeral wreaths that were packed around his body in his tomb.

"Biblical Plants: The Reign of Ramses II," combines a variety of educational exhibits and activities with
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Treasures II*
page 3

*Great
Getaways*
page 3

*Classes for
Adults* page 7

Golden aspens

From the Director: Research Report at Rocky Mountain National Park

During the summer we have been working on two very interesting projects in conjunction with the staff of Rocky Mountain National Park. Under contract with the National Park Service the Gardens' staff and volunteers have been engaged in studies related to plants that grow within the park boundaries and are also doing a revegetation study along Trail Ridge Road. Dr. Richard Keigley, Research Biologist at the park, has been directing both projects.

Dr. Helen Zeiner, Curator of our Kathryn Kalmbach Herbarium, Loraine Yeatts, Project Coordinator, and other volunteer field botanists from our herbarium staff have been inventorying plants growing in the park. They have completed a thorough survey of the alluvial fan that was created in Horseshoe Park at the time of the Lawn Lake flood. The plant records that they have compiled will be extremely valuable in future studies of the natural regeneration of plant life in this area which was so completely altered as a result of that inundation.

The project team is also surveying all plants currently on the park list that indicates only one previous collection record and, as time constraints permit, they are surveying all the grasses that grow within the park. Dr. Janet Wingate, who has taught several courses on grass identification at the Gardens, has added significant data on grasses to the park inventory which was very incomplete for this plant family prior to the present study.

An interim report from the project team in late July indicated approximately 40 plants not previously listed in the park's records had been found and identified including one rare monkey flower, *Mimulus gemmiparus*. Preserved and mounted specimens of each of the plants collected are being added to herbaria at Rocky Mountain National Park, The University of Colorado in Boulder and our Kathryn Kalmbach Herbarium.

The second research project is being conducted by Jim Borland, our Plant Propagator and Project Coordinator, and John Brett who was hired for this summer to assist him with the project. They are studying how to propagate plants native to the park so they may be used to successfully revegetate areas along Trail Ridge Road.

Under the direction of our staff a mist propagation bed has been constructed at the park's research building to facilitate on-site propagation of plant material for which the propagation techniques have

already been determined. A pilot project that Dr. Keigley and Jim Borland worked on during the summer of 1986 contributed basic information needed to begin propagation of plants at the park this summer. Plants needed in large numbers to support the current research project are being grown both at the park and at the Gardens.

Also being grown at the Gardens are those plants for which either incomplete or no information is currently available on their methods of propagation. Complete records of both propagation successes and failures of each species attempted are being kept as Mr. Borland seeks to determine the appropriate methods of use. Plants resulting from the propagation project are being set out in test plots along Trail Ridge Road where their subsequent success or failure under natural growing conditions will be monitored and measured.

It is sometimes easy for our members to overlook the important scientific work that is going on at the Gardens because it is far less obvious than the vibrant outdoor summer displays of colorful plants or the exotic orchids and tropical plants displayed indoors at our York Street site. However, scientific work is ongoing throughout the year in the Mycology Research Lab, the Kathryn Kalmbach Herbarium, our joint program of rare and endangered plant preservation with the national Center

for Plant Conservation, our orchid virus testing program and our landscape plant testing and evaluation program. Each of these programs deserves your support as a member of Denver Botanic Gardens and they deserve the broader support of all citizens of the State of Colorado who are direct or indirect beneficiaries of the important work being done.



Merle M. Moore
Executive Director



Tributes

In memory of Rose Christensen
Richard & Mildred Jones

In memory of Katherine D. Cosgriff
Mr. & Mrs. Richard C. Yates

In memory of Priscilla DeLill
Solange Gignac

In memory of Lyman Edwards
Mr. & Mrs. John A. Atkinson

In memory of Mrs. George (Sue) Kelly
E. Sydney Glick
Ross & Emma Lahr
Moras & Erne Shubert

In memory of William Lucero, Sr.
Mrs. Harold E. Parkinson

In memory of Robert L. Mitton
Mr. & Mrs. Rollin D. Barnard
Mr. & Mrs. Edward B. Horton, Jr.

In memory of Ruth Ashton Nelson
E. Sydney Glick

In memory of Travis James Nold
Robert & Adele Nold

In memory of Robert O'Donnell
Mrs. Harold E. Parkinson

In memory of Mrs. Howard (Patricia) Sidwell

Sandra Franzen
Mrs. L. Richard Girouard
E. Sydney Glick
Mary N. MacKay
Mr. & Mrs. William Sidwell

Green Thumb News

Number 87—9 September 1987

Published monthly by the Denver Botanic Gardens Education department, 909 York Street, Denver, Colorado 80206, and edited by Patricia A. Pachuta and Carolyn Knepp. Subscription to this newsletter is a benefit of membership in the Botanic Gardens. For membership information, please write the Membership department at the above address or call 575-3751.

Deadlines for this newsletter are: Major news stories, feature material (including photographs or artwork), and short notes are all due not later than August 19 for October, September 18 for November and October 19 for December.

Please plan in advance and meet deadlines. Late material cannot be used. Stories must be typed, double-spaced, preferably on copy paper provided by the editor. Please call the Education department at 575-3751 for details.



Accredited by the
American Association
of Museums



Decision-making at the 1986 "Botanical Treasures: A Show and Sale."

Great Getaways

Keep the following tours to exciting and alluring destinations in mind when planning future vacations. For additional information on any of the trips, please contact DBG Assistant Director Andrew Pierce at 575-3751, extension 18.

Gorgeous Galapagos, February-March, 1988

This always-popular destination features plants and animals in variety and profusion found nowhere else on Earth. The price will be approximately \$4,000 and it's not too early to express your interest. Contact Andrew Pierce at 575-3751, extension 18, to be added to the mailing list for future mailings.

Lure of the Orient, October 1988

Learn about the gardens and native flora of the Orient from our Executive Director, Merle Moore. Join him for three weeks in a part of the world he is comfortably familiar with. Call for trip details and cost.

Behind the Scenes at the Rose Parade, January, 1989

This will be a personal and intimate look at the flowers and people behind the floats at the annual Rose Parade in Pasadena, California. Find out what it takes to put together the millions of flowers on the floats and make your own choice of the prizewinners. Tickets to the Rose Bowl Parade are included; game tickets may be optional. Watch for itinerary details and costs.

The Desert Blooms, Spring 1989

This reasonably priced (about \$1,000) motor tour through the

American Southwest will reveal a beauty invisible from the highway. The seven to ten day trip will be highlighted by frequent stops with short walks to observe the desert flora. Botanical experts will make identification easy.

Arctic Wild Flowers, June-July, 1989

This is an ambitious 21-day tour to the lands of the Midnight Sun above the Arctic Circle. Far from being barren and uninteresting, the land is filled with the drama of the tundra. Dr. Allan Taylor, linguistics professor at University of Colorado, is coordinating this adventure.



"Botanical Treasures II" November 6, 7 & 8

If you missed last year's highly successful show and sale of botanical prints you'll have another opportunity this fall. Once again, Turner Art Gallery in Cherry Creek and Denver Botanic Gardens will team up to provide "Botanical Treasures II: A Show and Sale of Prints from 1600 to the Present" in John C. Mitchell II Hall. The dates are November 6, 7 and 8 and the times are 9 a.m. until 4:30 p.m.

Turner Art Gallery began collecting prints for the 1987 show and sale the day the 1986 event ended. Hundreds of beautifully matted and framed or matted and shrink-wrapped prints will be available for three days.

Prices will range from the inexpensive (\$25) to the extravagant (into the thousands) with a generous selection in all ranges, especially the \$35 to \$40 category.

These prints make excellent gifts for family and friends and a portion of the proceeds benefits ongoing programs at Denver Botanic Gardens. Collectors will be delighted by the wide array of works by well-known illustrators. Mark your calendar now for this three-day show and sale; you won't be disappointed.

DBG Librarian Solange Gignac announces that the Helen Fowler Library is now open!

"Biblical Plants: The Reign of Ramses II"

continued from page 1

tours highlighting appropriate plants. Changing exhibits will display plants found in regions of Ramses' influence, extending from early Egypt into modern Israel and Jordan.

In the Gardens' outside collection you can see many aquatic and bog plants indigenous to the Nile as well as those harvested for crops. The Scripture Garden contains many of the cultivated plants such as papyrus, leeks, onions, melons, garlic, lentils and fava beans.

Scripture Garden walks are scheduled and they will include visits to the nearby Herb Garden and Aquatic Plant Display. The walks will begin promptly at 1 and 2 p.m. on Saturday, September 19 and Tuesday, September 22 (rain or shine). The walks will each last 45 minutes and preregistration is encouraged since participation is limited to 20 people per tour. The fee for the walks is \$1.50 per person. Register by completing the Education department form on page 10. If space is available, you may register the day of the walk.

Additional tours and classes will be offered to demonstrate contemporary uses of plants associated with the reign of the pharaohs and early Egypt. Barley, for example, was a common crop of the Nile and every ancient Egyptian household used barley to brew their own beer. In fact the two staples of the Egyptian diet were bread and beer.

"Tours of Coors Brewery: A Botanical Viewpoint," will be offered twice a day on Saturdays from September 19 through October 31 to show modern methods of brewing beer from barley. Each Saturday a Coors van will leave DBG at 10 a.m. and 2 p.m. taking Gardens' members and friends to Coors for a VIP tour that lasts 2 1/2 hours. Visitors can observe packaging, malting, brewing and filtering processes, as well as a slide presentation.

Also included will be a tour of the greenhouse (available only through special arrangement) and a visit to the sample room. The greenhouse contains barley, tropical plants, roses, carnations and other flowers used for landscaping and arrangements. Each participant will be charged \$2 and registration information is on page 8.

Two classes have also been scheduled that provide instruction on uses of many plants of the Nile. Beginning October 6 and running for five Tuesdays, Robin Taylor Daugherty will teach "Natural Materials Basketry Techniques." In this series of classes students will learn the specifics of collecting, preparing and using cattails,



Tiffany & Co's John Loring and DBG Trustee Mrs. Norman Patrick discuss the 1987 "Christmas at the Ice House."

bulrushes, grapevines and other materials and how to incorporate them into one-of-a-kind baskets.

On October 3 Ray Tomasso will introduce students to the art of papermaking. Demonstrations and discussions of suitable plant fibers such as papyrus and cattails will be followed by a hands-on workshop. See the Education department section of this newsletter for complete information on classes and tours.

"Egyptian Oasis" will greet visitors in the Lobby Court with date palms, fig trees and tropical barbets, special avian guests on loan from the Denver Zoo. The oasis will shelter visitors September 15 until October 10. From October 20 until November 18, "Bounty of the Nile" will feature spices and foods of the Middle East and Egypt, along with a display of colorful flowers in the Lobby Court.

Ramses II was a builder of great monuments, a powerful force in ancient Egypt and a pharaoh both respected and feared. Yet, he displayed an enthusiastic interest in the plants of Egypt. Visit the Gardens this fall for an introduction to the botanical and horticultural interests of this great pharaoh and learn how his interests influenced the development of Egypt and civilization's agricultural future.

Christmas at The Ice House

The 1986 "Christmas at the Ice House" was a successful Garden Club of Denver benefit for Denver Botanic Gardens and Historic Denver, Inc. Part of the "Greening of Denver" project aimed to raise funds for planting on open space in lower downtown Denver, the event made \$25,000 of which the Gardens received a substantial share.

This event will occur again, November 12-14, at The Ice House at 1801 Wynkoop, with a display of festive holiday table settings, including a table designed by Tiffany & Co. of New York. Tiffany celebrates its 150th anniversary by sending to Denver a special "Table by Tiffany" featuring William IV china, unique crystal, linen, flatware and accessories typical of 1837. Mr. John Loring, Vice President and Design Director at Tiffany & Co., will accompany the "Table by Tiffany" and will be at the Ice House. A variety of additional table settings will be provided and 12 of Denver's most accomplished hostesses from The Garden Club of Denver will be available to describe the settings.

"Table by Tiffany" will add a sparkle to this year's opening to the general public of the Design Center at The Ice House in preparation for the holiday season. Watch for more information on this benefit in the *Green Thumb News*.

Ruth Ashton Nelson (1896-1987)

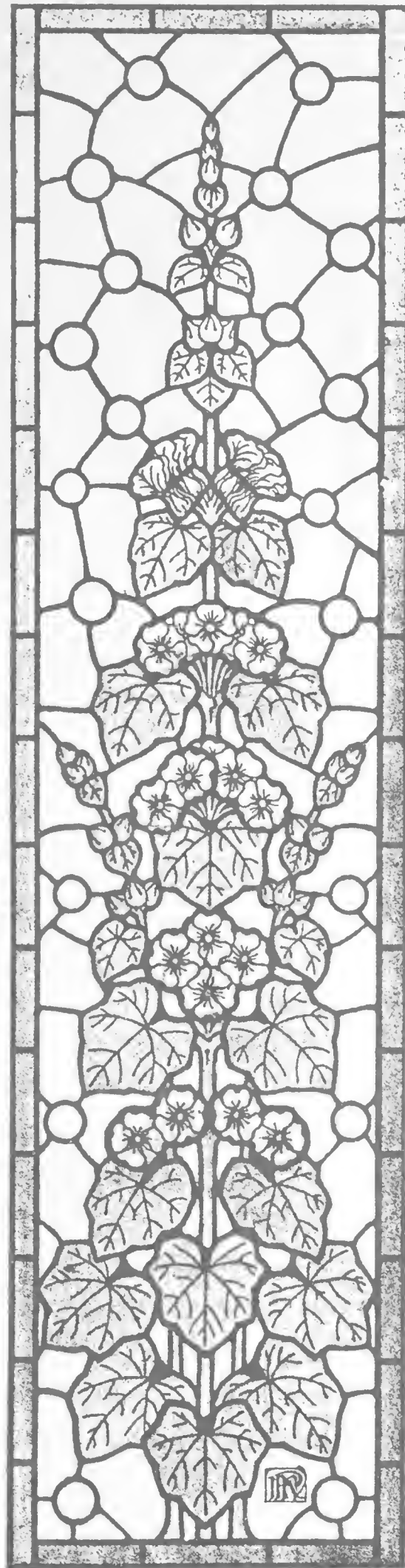
Colorado lost an eminent botanist and Denver Botanic Gardens a loyal friend in the death of Ruth Ashton Nelson in Colorado Springs on July 4, 1987. Mrs. Nelson, who was born in Massachusetts, celebrated her 90th birthday last November 29. She frequently visited the Kathryn Kalmbach Herbarium where volunteers and visitors always felt privileged to enjoy her friendly company, her pleasant conversation and her penetrating comments on the plants being processed at the time.

Ruth Nelson lived and worked in Colorado and the Rocky Mountains for more than 60 years, leaving a rich legacy of writings on the plants of this area. She was an avid field botanist and had the gift of writing about plants with unusual understanding and clarity.

Early in her life she manifested a remarkable interest in botany while living on a farm in Massachusetts. She recalled that her mother helped her identify the plants she brought in from the fields using Asa Gray's *Lessons in Botany and Field, Forest, and Garden Botany* (published in 1878). As a young girl she visited the Rockies with her parents during summer vacations. The impressions of the mountains and their colorful wild flowers were so inspirational that she later returned to spend her life among them.

Following her graduation from Mount Holyoke College Ruth Ashton moved to Estes Park where she took a position with the National Park Service spending several summers in field studies of the plants of Rocky Mountain National Park. She also bought a small ranch northeast of Estes Park where she spent many happy years. Her research resulted in the publication of her first book, *Plants of Rocky Mountain National Park* in 1933. This was the first comprehensive publication on the plants of the park, and it was so well received that Mrs. Nelson published revisions in 1953, 1970, 1976 and 1982. The work also led to a Master's degree in botany from Colorado State University.

In 1931 she married the late Dr. Aven Nelson, one of the great Rocky Mountain botanists, then professor of botany at the University of Wyoming and Curator of the Rocky Mountain Herbarium that he established on the campus in Laramie. For 20 years the Nelsons collected and worked with the plants of the Rocky Mountains, preparing thousands of specimens and publishing numerous papers. They spent one summer surveying and collecting the plants of Mount
continued on page 6



Sue Kelly (1907-1987)

5

Memorial services for Sue Kelly were held July 7 in her rose garden in McElmo Canyon, west of Cortez. She was preparing for a rose show in Durango when she suffered a heart attack and passed away a few days later at a Durango hospital.

A volunteer for Colorado Forestry and Horticulture Association (CF & HA), forerunner of Denver Botanic Gardens, she and Daisy Hastings originated the idea of garden tours as a benefit in 1951. She was an active member of the Herbarium Committee (now the Kathryn Kalmbach Herbarium) and participated in many CF & HA field trips.

Sue was appointed to serve as George W. Kelly's assistant and receptionist at Horticulture House. Mr. Kelly was a founder and executive director of CF & HA and editor of *The Green Thumb*. When the Botanical Gardens Foundation of Denver was formed in 1951, Mr. Kelly was a charter member and served as its first director during development of Denver Botanic Gardens at the original site near the Museum of Natural History at City Park. At that time he was also writing his first book, *Rocky Mountain Horticulture Is Different*, and he started *The Green Thumb* radio program. As his assistant, Sue was vitally involved in all of these activities.

Anna R. Garrey, an officer in both organizations during this period, also assumed the unofficial role of matchmaker. In May 1952, George and Sue were married in the home of Mr. and Mrs. George Garrey.

For 10 years after leaving Horticulture House the Kellys owned and operated Cottonwood Garden Shop in Littleton. Although they provided the usual nursery stock, they also offered native and exotic plants for dedicated gardeners and gave invaluable assistance and encouragement to beginning gardeners.

Mrs. Kelly was known in Colorado and neighboring states as a judge at rose shows and in 1979 was the recipient of the American Rose Society's Outstanding Judge Award. In 1981 she received the Silver Honor Medal. She developed her own collection of more than 300 roses after they moved to McElmo Canyon in 1965. Both were active in the Colorado Federation of Garden Clubs and Garden and Home Shows, often returning to this area.

She is survived by her husband who will continue to live at their home near Cortez. A Sue Kelly Memorial
continued on page 6

6 4th World Wilderness Congress

The 4th World Wilderness Congress convenes for the first time in the United States, in Colorado, September 11-18. It will be opened by a three-day World Wilderness Forum in Denver and continued by a five-day convention of international delegates at the YMCA of the Rockies' Conference Center.

The Congress provides an international platform for major statements and commitments to be made on behalf of worldwide conservation. Topics of discussion include tropical rainforest and wildland diversity, a global wildland inventory and a plan for a new conservation bank to focus on the link between environmental health and economic development.

The public is also encouraged and invited to attend. The Fourth World Wilderness Congress is a public forum where concerned citizens may join other participants from agriculture, business, politics, science and the arts and humanities.

A 20 percent discount will be offered to members of Denver Botanic Gardens and reduced registration fees are as follows: \$200 for the eight-day program; \$125 for the five-day program; \$40 for individual days; and \$4 for general admission to observe the educational exhibits.

Inquiries regarding registration and the program should be directed to Vance Martin, President, International Wilderness Leadership Foundation, 4th World Wilderness Congress, Colorado State University, Fort Collins, CO 80523. Or, phone him at 491-5804.

Sue Kelly

continued from page 5

Rose Garden is planned in Cortez and contributions can be made to the Valley National Bank, P.O. Drawer BB, Cortez, CO 81321.

Bernice Peterson

Ruth Ashton Nelson

continued from page 5

McKinley National Park under the sponsorship of the National Park Service. The collaboration of this remarkable team ended with the death of Dr. Aven Nelson in 1952.

But Mrs. Nelson continued her botanical activities unabated, carrying out the revisions of her first book and publishing in 1969 a new book, *Handbook of Rocky Mountain Plants*. This book treated plants found in the national parks and national monuments in seven western states from Canada to Mexico. A second edition of this very successful work was published in 1977. In the meantime Mrs. Nelson had published another book, *Plants of Zion National Park*, in 1976 under the auspices of the Zion Natural History Association.

Before her health began to fail Ruth Nelson had started work on a book on the wild flowers of Arizona. She had long dreamed of doing this publication to fill what she recognized as a need. She regretted greatly that she was not able to carry out this project. But she had long since realized her goal of writing books on wild flowers that could be used and

understood by beginners and others who had little or no botanical background. Unquestionably, her books opened the door to the recognition and enjoyment of the mountain wild flowers for countless numbers of students, visitors and residents of the area. The botanical heritage of Colorado and the Rocky Mountains has been greatly enriched as a result of her life and work.

Dr. William G. Gambill, Jr.

New Members' Orientation Party October 21

New members of Denver Botanic Gardens will enjoy a special welcome party planned for Wednesday evening, October 21. For information call the Membership department at 575-3751, extension 22, or watch your mail for an invitation.

Plant and Produce Sale

On Saturday, September 5 from 9 a.m. until 4 p.m., the Denver Men's Garden Club will offer a sale of produce grown in their gardens. They will also sell plants for the house, including some hanging plants. This annual sale will be held in the parking lot of the Botanic Gardens House at 909 York Street. For additional information, call Jim Arduser, Sale Chairman, at 794-5974.

Vanda hybrid



Late Bloomers

(one session)

Wednesday, September 9

8 a.m. to 2 p.m.

Enjoy the flowers of late summer on a field trip to several locations just south of Boulder. Identify late bloomers such as sunflowers, gay feathers, asters, snakeweed and other plants of the upper plains region. In addition to identification skills, participants will learn about animal uses of plant fruits and seeds.

Find out what birds dine on mullein and sage and understand why cheat-grass and rabbitbrush are not favored fare of most animals. This field trip is an easy, one-mile saunter.

Bring binoculars, your favorite botanical field guide, lunch, drinking water, sunscreen, hat, walking shoes and rain gear.

Meet: At the main DBG parking lot at 8 a.m. to carpool. Or, call the Education department at 575-3751, extension 20, if you prefer to meet the group in Boulder at 8:45 a.m.

Leader: Tina Jones, popular field trip leader and naturalist, studied alpine ecosystems at the University of Colorado, Boulder, Research Center outside of Ward, Colorado.

Fee: \$7.50 members/\$8.25 non-members

Golden Aspens and their Ecology

(two sessions)

Wednesday, September 16 from 7 to 9 p.m. in

Classroom C

Sunday, September 20, field trip from 1 to 5 p.m.

This is the time of year when the quaking aspen leaves are golden. Learn about the natural history of aspen clones, what animals are associated with them and their North American Indian uses.

The first session is an introductory slide lecture followed by a field trip with an easy walk at Golden Gate Canyon State Park.

Eat your lunch beforehand and remember to bring drinking water, comfortable shoes, rain gear, warm jacket, sunscreen and notepad. Binoculars and cameras are optional.

Meet: promptly at 1 p.m. at DBG's main parking lot to carpool. Or, meet the group at 1:40 p.m. in the main information building at Golden Gate Canyon State Park. Please note that there is a \$3 daily user fee per car entering the park in addition to the field trip fee.

Instructor: Tina Jones

Fee: \$15 members/\$16.50 non-members



Plant Life Field Trip: Wheat Ridge Greenbelt

(one session)

**Wednesday, September 16
9 a.m. to 4 p.m.**

This recovering riparian area along Clear Creek gives us an opportunity to observe a wide variety of late summer plants. Asters and sunflowers and a variety of wetland plants should be conspicuous. The plains and narrowleaved cottonwoods meet here and produce a hybrid. Old gravel pit ponds are resting places for waterfowl and the thickets along the creek are noted as a place to observe eastern warblers during migration. Be sure to bring binoculars if you have them. Don't forget your lunch.

Leader: Peter Root is an amateur botanist who volunteers regularly in the Kathryn Kalmbach Herbarium at DBG; he is also a volunteer naturalist at Roxborough State Park.

Meet: promptly at 9 a.m. in the main DBG parking lot to carpool and receive directions. Participants will share gasoline expenses.

Fee: \$2 per person

Forcing Bulbs

(one session) Classroom B

Saturday, September 19

Section I: 9 to 10:30 p.m.

Section II: 11 a.m. to 12:30 p.m.

Please indicate your section on the registration form.

The process of causing spring flowering bulbs to bloom by other than naturally occurring conditions is called forcing. Learn this technique so that you can enjoy an assortment of spring blossoms while it is cold and dreary outside.

Each student will pot several types of bulbs during class to take home and can expect to enjoy them during the winter holidays.

Instructor: DBG's Education Director Pat Pachuta is a horticulturist with much teaching experience.

Fee: \$13 members/\$14 non-members (includes \$7 for materials)

Limit: 15

CTA S S E S

Fall
1987
Denver Botanic Gardens



Xeriscape Gardening

(six sessions)

Thursdays, October 8, 15, 22, 29,
November 5, 12
7 to 9:30 p.m. Classroom C

Reconsider traditional landscaping and use "xeriscape" or dryland concepts to add a variety of interesting plants into your garden. Learn about their different habitats, from the desert to the grasslands, and apply this information to use and grow these plants successfully.

This course will include design principles and the culture and maintenance of a wealth of plants with special emphasis on the non-traditional. Curl-leaf mountain mahogany, rabbitbrush, cliff rose and paper flowers are all examples of beautiful yet untapped dryland plants that Colorado has to offer.

Through slides, a DBG tour and the development of a class study problem, students will develop an appreciation of our natural resources and a landscape that incorporates that awareness.

Instructor: Gayle Weinstein is a botanist horticulturist at DBG and oversees all aspects of our outdoor plant collections. She has taught horticultural subjects at Ohio State University and the Aurora Public Schools Technical Center. Mrs. Weinstein has written numerous articles on dryland gardening and is the designer of the new DBG Xeriscape Garden.

Fee: \$60 members/\$66 non-members

Know and Grow Orchids

(three sessions)

Saturdays, October 10, 17, 24
9 to 11 a.m. Classroom C

Discover the fantastic orchid family and their basic cultural requirements in this three-session course. Following an introduction to the orchids' natural and human history, participants will learn how to develop a good collection for their homes and greenhouses.

Fundamentals of soil media, watering and fertilizer will be covered through lectures and demonstrations. Each student will have the opportunity to take a division home following a hands-on dividing and repotting session.

Instructor: Botanist-Horticulturist Larry Latta oversees the DBG greenhouse collections. An orchid hobbyist for over 15 years, he has collected in the wilds of Ecuador, Venezuela and eastern Mexico.

Fee: \$24 members/\$26.50 non-members

Limit: 18

Living Cells of Plants and Microscopic Organisms

(four sessions)

Saturdays, October 10, 17, 24, 31
9:30 to 11:30 a.m. Classroom B

The exciting microscopic world will be revealed while learning how to manipulate the compound microscope. Methods of preparation of materials for inspection, culturing of selected kinds of organisms and preparation of slides to show living cells will all be covered plus more.

Additional enjoyment will include the discovery and identification of the "wee beasties" that thrive in local pond waters.

Instructor: Moras Shubert, Ph.D.

Fee: \$37 members/\$40 non-members (includes \$5 for materials)

Limit: 12

Fall Woody Plant Identification

(four sessions)

Saturdays, October 10, (skip Oct. 17), 24, 31,
November 7
1:30 to 4:30 p.m. Classroom A

Learn to identify the many beautiful trees and shrubs that are grown in our region and at Denver Botanic Gardens. In this introductory course in plant recognition, students will learn to identify many of the more common genera of evergreen and deciduous trees and shrubs.

Each class meeting consists of a brief lecture followed by ample field study to provide hands-on experience with the plant material.

Instructor: Gayle Weinstein

Fee: \$48 members/\$53 non-members

Limit: 15

Botany for Beginners

(four sessions)

Wednesdays, October 14, 21, 28,
November 4
7 to 9 p.m. Classroom B

This is a course for those who have no background in botany but wish to know more about plant parts and what they do. This is fundamental if you wish to know how to identify plants; it will also help you appreciate what plants require.

Some microscope work as well as greenhouse tours are included.

Instructor: Moras L. Shubert, Ph.D., is Professor Emeritus of Botany at the University of Denver and has over 30 years of teaching experience.

Fee: \$32 members/\$35 non-members

Limit: 15

Tour of Coors Brewery: A Botanical Viewpoint

(one session)

Section 1 A:	Sept. 19
Section 1 B:	Sept. 19
Section 2 A:	Sept. 26
Section 2 B:	Sept. 26
Section 3 A:	Oct. 3
Section 3 B:	Oct. 3
Section 4 A:	Oct. 10
Section 4 B:	Oct. 10
Section 5 A:	Oct. 17
Section 5 B:	Oct. 17
Section 6 A:	Oct. 24
Section 6 B:	Oct. 24
Section 7 A:	Oct. 31
Section 7 B:	Oct. 31

Sections A meet on Saturdays from 10 a.m. to 1:30 p.m.; Sections B meet on Saturdays from 2 to 5:30 p.m.

Please indicate your section on the registration form.

A VIP tour of Coors' brewery takes Gardens' members and friends through the packaging, malting, brewing and filtering processes. See Coors' modern methods of turning barley into beer and taste the results. This tour is being offered as part of "Biblical Plants: The Reign of Ramses II."

In addition, participants on this tour will have an opportunity to visit the Coors greenhouse where barley is grown along with tropical plants, roses, carnations and some landscaping material.

Tours are limited to 29 and they are appropriate for children 12 and over. Ladies need to wear slacks and comfortable, closed-toe shoes because the tour will be going over open grates.

Leader: Coors staff

Meet: a van from Coors at the DBG entrance at 1005 York Street. The van leaves promptly at 10 a.m. and 2 p.m.

Fee: \$2 per participant (includes transportation)

Bird Behavior Study

(four sessions)

Thursdays, October 29, November 5, 12, 19
6:30 to 8:30 p.m. Classroom A

Are you puzzled by certain avian activities? Just what enables birds to fly so well? Topics in migration, territory, song, courtship, food acquisition and bird anatomy will be discussed in this four-week course.

Mounted and preserved bird specimens will be observed. Find out why some woodpeckers disperse ants throughout their feathers and learn why birds sunbathe or take dust baths. Enhance your birdwatching beyond simple identification and learn the

how and whys. Extensive hand-outs will be provided.

Instructor: Tina Jones

Fee: \$32 members/\$35 non-members

Scripture Garden Walk

(one session)

Section I: Sat., Sept. 19,
1 to 1:45 p.m.

Section IB: Sat., Sept. 19,
2 to 2:45 p.m.

Section II: Tues., Sept. 22,
1 to 1:45 p.m.

Section IIB: Tues., Sept. 22,
2 to 2:45 p.m.

Please indicate your section on the registration form.

Walks of the Scripture Garden are being provided in conjunction with "Biblical Plants: The Reign of Ramses II" and will introduce visitors to the plants of the Bible that grow at DBG.

The Scripture Garden was designed to provide a visible link with the people and events of the Bible. Plants that grow in this garden are descendants of those that grew in the Holy Land thousands of years ago.

Leader: Gayle Weinstein

Meet: at the Scripture Garden (rain or shine). Walks begin promptly.

Fee: \$1.50 per student

Limit: 20

Colorado Conifers and their Natural History

(two sessions) Classroom B
Tuesday, Oct. 27 from 6:30 to 8:30 p.m.

and
Sunday, Nov. 1 from 2 to 4 p.m.

Can you distinguish a one-seeded juniper from a Utah juniper? Learn how to correctly identify Colorado's native junipers, pines, spruces and firs from characteristics such as cones, needles and bark.

Look at cut cross sections and discuss annual rings. Specific plants, animals, climate and soil associated with our evergreens will all be covered.

After a brief meeting in the classroom, the second meeting will consist of a field trip on the DBG grounds. Please bring materials to take notes, a hand lens and a single-edge razor blade or small, sharp knife to cut plant materials.

Instructor: Tina Jones

Fee: \$16 members/\$17.50 non-members

Sketch on Saturdays

(five sessions) Classroom A
Saturdays, October 3, 10, 17, 24, 31
10 a.m. to 12:30 p.m.

Discover the pleasures of sketching

at the Gardens in the fall. Instruction will cover basic drawing techniques and materials with an emphasis on tapping the unique creative vision of each participant.

No previous experience is necessary and materials can include drawing pencils, charcoal, colored pencils, pen and ink and pastels. Please bring drawing pencils and paper no smaller than 8½ by 11 inches to class.

Instructor: Lynette Swanson-O'Kane

Fee: \$50 members/\$55 non-members

Watercolor Painting

(five sessions) Classroom B
Thursdays, October 1, 8, 15, 22, 29
10 a.m. to 12:30 p.m.

Explore the sparkle and delicacy of watercolor painting while enjoying the natural setting of Denver Botanic Gardens. This course will cover the basic materials and techniques of watercolors with emphasis on the freedom of personal expression.

Come prepared with supplies. You'll need: a 1½-inch flat brush, a #10 round brush, watercolor paper, tissues, container for water, plastic palette and cake or tube watercolors.

Instructor: Lynette Swanson-O'Kane is a graduate of the Philadelphia College of Art and is a professional artist with national representation of her work.

Fee: \$50 members/\$55 non-members

Limit: 12

Calligraphy—The Italic Hand

(six sessions)

DBG's Morrison Center

Section I: Mondays, October 5, 12, 19, 26, November 2, 9 from 1:30 to 3:30 p.m.

Section II: Wednesdays, October 7, 14, 21, 28, November 4, 11 from 7 to 9 p.m.

Please indicate your section on the registration form.

This introductory course in the italic hand is designed for the beginner and experienced student who wants to expand skills or brush up on the italic hand. Emphasis will be on learning the basic letter structure of the italic alphabet.

Design, color and history of the alphabet are included. A materials list will be provided after registration.

Instructor: Alicia McKim studied art at Western State College and is a freelance calligrapher whose work is exhibited widely.

Fee: \$48 members/\$53 non-members

Papermaking Workshop: From Plants to Paper

(one session)

Saturday, October 3

10 a.m. to 3 p.m.

DBG's Morrison Center

Experience the art of papermaking in this one-day class. Make flat sheets from cotton rag pulp and experiment with the addition of plant material such as flower petals. Demonstrations and a discussion of other suitable plant fibers such as papyrus and cattails will also be provided and a slide presentation on papermaking techniques throughout the world will be given.

Please bring a sack lunch.

Instructor: Ray Tomasso received a master's degree in fine arts from the University of Colorado and has extensive teaching experience. His work is included in many permanent collections throughout the United States.

Fee: \$20 members/\$22 non-members (includes all materials)

Limit: 12

Natural Materials Basketry Techniques

(five sessions)

DBG's Morrison Center

Tuesdays, October 6, 13, 20, 27,
November 3

Section I: 12:30 to 4 p.m. except
October 6 when the
class meets until 4:30
p.m.

Section II: 6:30 to 10 p.m. except
October 6 when the
class begins at 6 p.m.

Please indicate your section on the registration form.

Locally gathered plant materials create wonderful textures and visual excitement when they are incorporated into baskets. Learn the specifics of collecting, preparing and using cattails, grapevines, iris, bulrushes, bark and others.

Students will make one basket each session using five different construction techniques.

Please bring kitchen or garden shears, awl, jackknife, clothespins (pinch-type) and an old towel.

Instructor: Robin Taylor Daugherty is a fiber artist with considerable teaching experience. She has taught weaving, spinning, felting, tapestry-making and basketry throughout Colorado and her work is exhibited widely.

Fee: \$95 members/\$105 non-members (includes \$35 for the construction materials for five baskets).

Limit: 12

Basketry Workshop: Western Cherokee Double-Woven Basket

(one session)

9 a.m. to 4 p.m. Morrison Center

Section I: Friday, October 9

Section II: Saturday, October 10

Please indicate your section on the registration form.

The Cherokee Indians have a very rich tradition of basket weaving. After moving to Oklahoma from their Carolina homeland, they adapted their designs to the materials that were locally available such as buckbrush and honeysuckle.

Learn to make this basket from reed. Its style varies widely from very small to sewing basket size and lids are often included on the larger ones.

Because the baskets are not large, participants should be able to weave two baskets and possibly a lid in this all-day workshop. Please bring sharp, pointed scissors or kitchen shears, awl, tape measure, an old towel and your lunch to class.

Instructor: Robin Taylor Daugherty

Fee: \$25 members/\$27 non-members (includes \$5 for materials)

Limit: 12

Western Cherokee basket with lid



For Parents and Children Carve-O-Lantern Party

(one session)

Saturday, October 31

DBG's Morrison Center

Section I: 10 a.m. to noon

Section II: 1 to 3 p.m.

Please indicate your section on the registration form.

Celebrate Halloween in a pumpkin carving party. Using a special Carve-O-Lantern kit, children 8 and over and a parent will make incredible jack-o-lanterns. This is your chance to get wildly creative and turn an ordinary pumpkin into a masterpiece. Afterward, sip cider and nibble on roasted pumpkin seeds.

Please bring one or two pumpkins of any size to class.

Instructor: Tina Goldstein is a fiber artist who studied at the University of Northern Colorado. She is a champion pumpkin carver whose "Cheshire Cat" won the grand prize in the 1986 Carve-O-Lantern Contest.

Fee: \$10 members/\$11 non-members (Fee covers one parent and one child

as well as one pumpkin carving kit.)

Limit: 12 parents and children per section.

Japanese Tea Ceremony

(one session) 2 to 3 p.m.

Section XII: Sunday, September 13

Section XIII: Saturday, September 26

Tea House in DBG's Japanese Garden

Please indicate your section on the registration form.

Because of its emphasis on such concepts as harmony, respect, purity, tranquility and elegant simplicity, the tea ceremony has for centuries been considered the epitome of Japanese life. This is an opportunity to experience an authentic tea ceremony in the quiet splendor of our Japanese Garden.

Instructor: Kathryn Kawakami and William Crowder.

Fee: \$4.50 members/\$5 non-members



Carve-O-Lantern Masterpieces

Denver Botanic Gardens 909 York Street Denver, Colorado 80206

Fees for courses should be paid in advance by check or money order made out to Denver Botanic Gardens. Since the space is limited in many courses, registration should be mailed in promptly. Your registration will NOT be acknowledged. Your name will be placed on the class list the day your money is received. No enrollments for class by phone please. All courses given are subject to a minimum enrollment of ten students. For further information, please call 575-3751.

Registration Form for Classes and Field Trips

The enclosed check, in the amount of _____, is to cover the registration fees for the following classes:

Name and section of classes _____

Name _____

Address _____

City _____ State _____ Zip _____

Home Tel. No. _____ Business Tel. No. _____

Member of Denver Botanic Gardens? ☐ Yes ☐ No

Gardening Tips for September by the Drs. Green

This Month

September brings a real wind-down in gardening activity. Even the lawn that you have so carefully manicured all summer decreases its growth and now it's time to plan for winter.

Earlier in the year you may have invested in plants that have underground storage organs such as gladioluses, cannas, dahlias and tuberous begonias. Although these perennials are not hardy in our area, you will probably wish to grow them at least another season.

Gladiolus corms have died down by this time. After digging them, the foliage should be dried and removed along with any adhering soil. Store the very dry corms on an open wire rack or in open paper bags in a cool place. Consider dusting with a fungicide before storage.

Canna lily rhizomes should be lifted from their summer flowering bed after the foliage has been killed by frost. They are then dried, perhaps for six weeks, and the soil, foliage and stalks removed. Store the prepared rhizomes in dry peat moss in large containers. Make sure the container is located in a frost-free location.

Begonia tubers are much more tender and should be lifted before any heavy frosts. Treat the same as canna rhizomes or place in perforated plastic bags, in dry peat moss, in your refrigerator.

Dahlia tubers are perhaps the hardest to overwinter. The tubers can be left in the ground during the first light frosts. They are then dug and treated in the same manner as cannas. Cut the stalk back to four inches at this stage. One year they were stored in a large barrel sunk in the ground below frost level and this was quite successful. The tubers must be kept cool to prevent early growth but freezing temperatures will damage them. A frost-free crawl space may be your answer. Store the tubers in dry peat moss or perlite.

Certain "annuals," such as geraniums, fibrous-rooted begonias and impatiens, may be potted up and brought indoors for welcome winter color. Choose plants that are free of diseases and pests and dig them up keeping a good root ball. Pot in a well-drained potting soil. Cut geraniums back by one third and shape the others by careful trimming. Geraniums will do quite well in a sunny location and if carefully maintained will last through the winter. Fibrous-rooted begonias and impatiens should flower an additional

two or three months but don't be surprised if they don't last through the winter.

Q *I have a Kentucky coffee tree in my front yard. Is it really a source of coffee from Kentucky?*

A The Kentucky coffee tree, *Gymnocladus dioica*, is a member of the bean family native to parts of the eastern United States including Kentucky and Tennessee. This leguminous tree produces large, dark brown pods that persist after the leaves have dropped in the fall.

Each pod contains four to eight dark brown seeds. Early settlers passing through the Cumberland Gap discovered that Indians roasted the seeds and ate them like nuts. During the Civil War some soldiers in Kentucky and Tennessee reportedly roasted the seeds and ground them for a coffee-like beverage. Be advised, however, that the pulp between the seeds has been known to make people and cattle ill so experimentation is definitely not encouraged.

Q *I've seen some beautiful natural baskets made out of grapevines and I would like to use some of my own vines for this use. How can I do this?*

A Grapevines make attractive additions to baskets and late fall and winter are the best times to gather this material. When pruning your vines keep in mind that grapes develop on the new growth (canes) of the growing season just ending and that the best crop of grapes develops on year-old wood.



In general, cut back after harvest and leaf fall, pruning back to approximately 60 buds per vine for American grapes or just a few buds per vine for European grapes. Leave several old-wood, thick, non-bearing stems. Through the summer you should prune non-fruiting side branches and they will make good weavers. Thicker vines can be split and used as ribs or left whole and used as rims or handles. Remove leaves but leave the tendrils for their rustic touch.

When pruning vines from the plant, coil them while they are still green if you are planning to use them later in the season. Use vines green or dried. If dry, soak overnight or boil in a large canning pot before using. DBG's Helen Fowler Library has several references on growing grapes and on the use of vines in baskets.

Q *Must peonies be moved in the fall?*

A There are certain plants that are best moved in the latter half of September and they include peonies and poppies as well as some of the very early flowering perennials such as woodland phlox and golden alyssum. For the majority of plants, however, we have much more success in Colorado with spring transplanting. Mid-April onward, when the foliage is just a few inches high, is the right time.

The Drs. Green welcome your comments and questions for possible inclusion in this column. Please contact them by writing to: Drs. Green, Denver Botanic Gardens, 909 York Street, Denver, Colorado 80206.



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Regular Meetings of Plant Societies
 A number of plant and horticultural groups meet fairly regularly at the Denver Botanic Gardens. Here is a listing of those groups and a general indication of when they usually meet. For more specific meeting times and locations as well as for information on how to contact a representative of the group, please call the Botanic Gardens switchboard during business hours at 575-3751.

African Violet Society, 4th Thurs. of 7 months; **Bonsai Society**, 1st & 3rd Tues.; **Cactus & Succulent Society**, 2nd Tues.; **Civic Garden Club**, 1st Fri.; **Colorado Native Plant Society**, 4th Wed.; **Gloxinia Gesneriad Growers**, 1st Sat.; **Hemerocallis Society**, 3rd Sun. of 4 months; **Ikebana International**, 4th Fri.; **Iris Society**, spring & fall dates; **Men's Garden Club**, 4th Thurs.; **Mycological Society**, 2nd Mon.; **Rock Garden Society**, 3rd Wed.; **Rose Society**, 2nd Thurs.; **Ultra Violet Club**, 4th Mon.; **Water Garden Society**, 2nd Sun. of 5 months.

*First meeting of a class with more than one session

S	M	T	W	T	F	S
6	7	1	2	3	4	5
				The Denver Chamber Orchestra	The Denver Chamber Orchestra	Men's Garden Club of Denver Plant & Produce Sale
13	14	8	9	10	11	12
			Late Bloomers			
20	21	15	16	17	18	19
		Ramses II at DBG Begins	Golden Aspens and their Ecology*, Plant Life Field Trip	Free Day for Denver City/County Residents, Bicentennial Celebration		Forcing Bulbs, Scripture Garden Walk, Coors Tours
27	28	22	23	24	25	26
		Scripture Garden Walk				Coors Tours
		29	30			
Coming Next Month October 1 Watercolor Painting* October 3 Papermaking Workshop, Sketch on Saturdays* October 5 Calligraphy—The Italic Hand October 6 Natural Materials Basketry Techniques* October 7 Calligraphy—The Italic Hand October 8 Xeriscape Gardening* October 9 Western Cherokee Double-Woven Basket October 10 Fall Woody Plant ID*, Living Cells of Plants*, Orchids* October 14 Botany for Beginners* October 17 African Violet Sale October 21 New Members' Orientation Party October 28 Associates' Luncheon October 29 Bird Behavior Study*						

Denver Botanic Gardens, Inc.
 909 York Street
 Denver, Colorado 80206
 303-575-3751

September 1987

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"Botanical Treasures II"— November 6, 7, 8

Botanical prints have become coveted collectibles. Although our renewed interest in gardening may be partially responsible, others cite different reasons for the increasing popularity of plant drawings and paintings. In a recent *New York Times*' article, Jay Dillon, associate director of the department of books and manuscripts at London's Sotheby's explained it differently—availability.

"Botanical prints may well be a hot field these days, compared to all else in the art market, because a fine original watercolor can often be had for from \$500 to several thousand dollars," Mr. Dillon states.

Discover for yourself the elegant beauty of botanical illustrations when Denver Botanic Gardens and Turner Art Gallery present "Botanical Treasures II: A Show and Sale of Botanical Illustrations" Friday through Sunday in John C. Mitchell II Hall. Hours are from 9 a.m. to 4:45 p.m. Hundreds of beautifully matted and framed or matted and shrink-wrapped prints will be available for three days in a wide range of prices.

The Turner Art Gallery, Cherry Creek, is the oldest art gallery in Colorado and has dealt in antique botanical prints since 1929. Today, they are recognized as the leading source of these illustrations in Colorado.

An exhibit of choice historical prints will be displayed along with interpretive information. Last year, collectors chose prints for a variety of reasons and roses, herbs and columbines were unusually popular. This year's selection promises to be *continued on page 2*

Loraine Yeatts to Present Ninth Annual Carl Tempel Wild Flower Lecture

Well-known Colorado nature photographer and field botanist Loraine Yeatts will present the Ninth Annual Carl Tempel Wild Flower Lecture on Monday, November 2, at 7:30 p.m. in John C. Mitchell II Hall.

An avid hiker and climber, Mrs. Yeatts has an extensive knowledge and love of our native flora. She holds a B.S. degree in physics from Mundelein College and pursued graduate studies at the University of Arizona.

Mrs. Yeatts lives and gardens in Golden, Colorado, and has presented numerous very popular programs at *continued on page 3*

Green Thumb



NEWS

**Denver Botanic Gardens
October 1987
Number 87—10**

Inside:

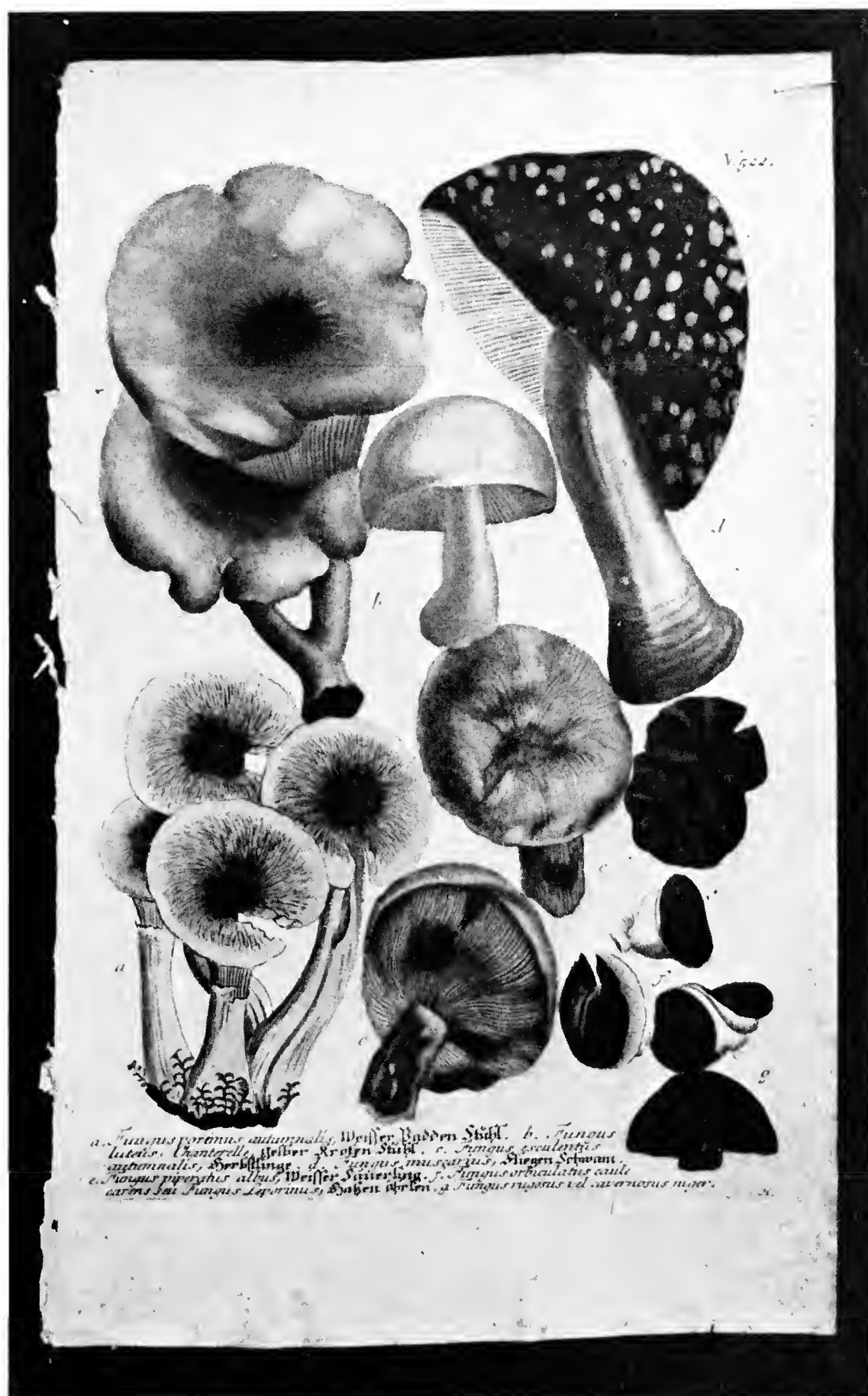
*Bonfils-Stanton
Lecture Series
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DBG page 5*

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Holiday Sale
page 5*

*Associates'
Luncheon
page 5*

*Classes for
Adults page 6*



*Assorted
mushrooms
from Johann
Weinmann's
Phytanthoza
Iconographia,
1737-47*

From the Director: Horticulture in Therapy and Rehabilitation

As I walk beside her, I wonder who this woman was in her youth. The snail-like pace we are walking seems almost too fast as she pulls on my arm for balance. She is almost half my size, legs and arms appearing so frail as if they will snap at any minute. Her skin is hanging from her bones and her vision is so impaired that she doesn't notice her approaching friend.

As we slowly edge down this sterile hall toward her room it is hard for me to imagine her at my age. Was she once so strong and active as I? Was her life filled with the joy of respect, independence and accomplishment that mine is today? A sudden panic comes over me as I realize that many years from now I too may be in this position—alone, institutionalized, dependent on others for my health, food and companionship, with nothing left but to walk the halls and grasp at every passing person, just to feel their touch. Am I invisible? Does anyone remember me? Hey, look, I too have thoughts, ideas and love to exchange.

We are to her room now, small and cramped. Her roommates lie in their beds babbling on and on. Neither notices us as we enter and pass to the back of the room. Sun is shining through the window onto a makeshift table that holds a few plants. She smiles and becomes so excited about showing them to me that she almost loses her balance in an effort to pull me towards them. This is what's left. A tiny corner filled with plants and sun.

The growth and blossoms of the plants mark the seasons, the passage of time, her remembrances of youth. We discuss the plants, where they came from, what type they are and when they flower. Each detail is remembered precisely. Although the table is quite full, she manages to make some room for the basket of flowers we planted today. She talks about showing them to her son when he comes, next week you know, for her birthday. But as I glance about her room I see no pictures, no sign of family and I realize she has nothing but her garden.

Lynn Thompson—1987

That poignant description of horticultural therapy in a nursing home setting was written by Lynn Thompson, a registered horticultural therapist. Prior to her recent move to San Francisco, Ms. Thompson was the coordinator of our Community Gardens Square Program.

The George R. and Pauline A. Morrison Horticultural Demonstration

Center, located at 11th and York Street, is the focal point of our horticultural therapy training program. Training services began to be offered through the center in 1984 and to date, more than 40 human service agencies and health care facilities have had staff and clients participate in horticultural therapy programming at the Morrison Center. More than 1,700 people have benefited from the horticultural therapy services we provide.

As a charter member, board member and past president of the Board of Directors of the National Council for Therapy and Rehabilitation Through Horticulture, I have had a long-term involvement with and commitment to the use of gardening and horticulture as therapy. I have designed and administered programs of horticultural therapy at The University of Michigan Matthaei Botanical Gardens and The Holden Arboretum in Mentor, Ohio.

The establishment, in 1984, of a horticultural therapy training program at Denver Botanic Gardens was a natural extension of our highly acclaimed educational program—bringing these same learning opportunities to people with disabilities. While the concept is one of educating professional therapists to use gardening and other horticultural activities in their client treatment programs, the result is an important public service extended from the Gardens to thousands of people in

Tributes

In memory of Vestal L. Brown

Mr. & Mrs. Frederic M. Pannebaker

In memory of Rose Christensen

Dr. & Mrs. Robert Kosanke

In memory of William F. Clifford

Dr. & Mrs. Robert Kosanke

In memory of Harold Fischer

Mr. & Mrs. James R. Florey

In memory of Ina Gillett

Carol Lofft

In memory of Vivian B. Jenkins

Shirley A. Cherry

Phyllis Fredricey

Mr. & Mrs. Roger Gifford

Mrs. Lake E. Grissom

Bruce M. Heider

Carolyn Heronema

Mrs. Mary B. Mackey

Fran & Joan McMullen

Mr. & Mrs. Joseph P. Natale

Frank E. Rippon

Carol Wehren

In memory of Mrs. George (Sue) Kelly

Mr. & Mrs. J.V. Petersen

In memory of Ruth M. Martin

Bruce, Kip, Sandy & Toby Winsett

In memory of Robert L. Mitton

Mr. & Mrs. Harlan H. Holben

In memory of Jill Johnstone Peterson

Marcia Standefer

In memory of Patricia Sidwell

Dr. & Mrs. Charles A. Rymer

the metro area.

Your support through membership in the Gardens makes public service programs like our horticultural therapy training program possible. As a member, you too are helping plants and people grow at Denver Botanic Gardens.



Merle M. Moore
Executive Director

"Botanical Treasures II"

continued from page 1

even better and will include a profusion of alpine.

Beautifully illustrated prints of all kinds of plants, in flower and in fruit, will make special holiday gifts this year. Art aficionados, plant lovers and historians are certain to treasure a present from this exhibition and a portion of the proceeds is tax-deductible.

There is no charge to attend other than the regular non-member gate admission fee. Plan to arrive early for the best selection and remember that a gift from the Gardens is also a gift to the Gardens.



Green Thumb News Number 87—10 October 1987

Published monthly by the Denver Botanic Gardens Education department, 909 York Street, Denver, Colorado 80206, and edited by Patricia A. Pachuta and Carolyn Knepp. Subscription to this newsletter is a benefit of membership in the Botanic Gardens. For membership information, please write the Membership department at the above address or call 575-3751.

Deadlines for this newsletter are: Major news stories, feature material (including photographs or artwork), and short notes are all due not later than September 18 for November, October 19 for December and November 20 for January.

Please plan in advance and meet deadlines. Late material cannot be used. Stories must be typed, double-spaced, preferably on copy paper provided by the editor. Please call the Education department at 575-3751 for details.



Accredited by the
American Association
of Museums

Travel with the
DENVER BOTANIC GARDENS

February 26 - March 18, 1988

Destination

The Galapagos Islands

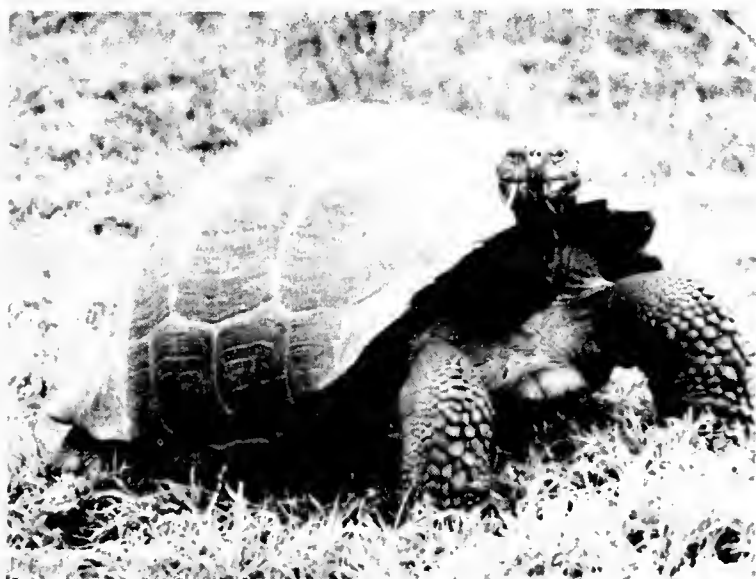
The Land of Darwin's "Origin of the Species"

And the Exotics of Peru and Ecuador

THIS UNIQUE TOUR IS BEING LEAD BY

Andrew Pierce

Assistant Director, D.B.G.



Without the plants the Galapagos would have no animals - we shall see both in their isolated splendor. Travel for 7-days around the Islands aboard the Santa Cruz, a 90-passenger boat especially made for Galapagos cruising.

OTHER HIGHLIGHTS

- THE RAINFORESTS OF TINALANDIA NEAR GUAYAQUIL - FOR EXOTIC FLORA AND FAUNA.
- QUITO - THE CAPITAL OF ECUADOR - HIGH IN THE ANDES AND FULL OF ANCIENT CULTURE.
- CUZCO AND THE URUBAMBA VALLEY - THE SACRED VALLEY OF THE INCAS.
- MACHU PICCHU - THE MOST FAMOUS RUINS IN SOUTH AMERICA - HOME TO THE INCAS.

Cost is approximately \$4500*, per person, double occupancy.
This price includes roundtrip airfare from Denver and a tax deductible contribution of \$200 to Denver Botanic Gardens.

Space is Limited

*Depending on choice of cabins

For More Information Call

***Travel associates, inc.* 759-8666**



Loraine Yeatts

continued from page 1

Denver Botanic Gardens. Her program at the Second Interim International Rock Garden Plant Conference, held last summer in Boulder, was exceptionally well-received.

Her presentations never fail to convey a proud enthusiasm and sense of profound joy for our high places. Currently, Mrs. Yeatts is Project Coordinator for a botanical inventory at Rocky Mountain National Park. As a result, she and other Kathryn Kalmbach Herbarium volunteers have spent many hours botanizing in the park this summer.

They have just completed a thorough survey of the alluvial fan that was created in Horseshoe Park at the time of the Lawn Lake flood. The plant records that they have compiled will be extremely valuable in future studies of the revegetation of plant life in this area so drastically altered by that inundation.

In her program, "Rocky Mountain National Park: Search for Our Botanical Legacy," Mrs. Yeatts will share some of the discoveries of her numerous plant-hunting hikes and backpack trips this past summer.

Viewers can expect gorgeous slides of a wide variety of wild flowers set amid the spectacular snow-capped peaks of this high mountain park. An added attraction is the opportunity to see some of the more remote areas of Rocky Mountain National Park as well as the often visited favorites such as Trail Ridge Road.

The Carl Tempel Wild Flower Lecture Series was inaugurated in 1979 to honor the late Major General Carl W. Tempel of Fitzsimons Army Medical Center, a great photographer and lover of wild flowers. His wife, Ruth Tempel, is a dedicated volunteer in our Gift Shop.

Admission to the lecture is without charge and all are welcome to attend "Rocky Mountain National Park: Search for Our Botanical Legacy." Take a fresh look at the glorious splendor of Rocky Mountain National Park through the eyes of this accomplished photographer and discover a bit of its rich botanical heritage.

Orientation Party for New Members October 21

Wednesday evening, October 21, new members will have an opportunity to learn more about Denver Botanic Gardens. Return your reservation or call the Membership department, 575-3751, extension 22, for details.



Loraine Yeatts

Bonfils-Stanton Lecture Series Begins in November

Save the second Tuesday evening of the month, beginning in November, for exciting horticultural programs in John C. Mitchell II Hall. Through the generosity of the Bonfils-Stanton Foundation, five distinguished horticultural speakers will present illustrated lectures for gardeners of all persuasions.

Well-known landscape designer and author Rosalind Creasy opens the series on November 10. Her best-seller *The Complete Book of Edible Landscaping* was recommended by the *Wall Street Journal* as the garden book of 1982 and her recent *Earthly Delights* was also well received. Ms. Creasy is an advocate of edible landscaping and her program at DBG will coincide with the release of her newest volume on edible theme gardens.

December's speaker, British-born Elsa Bakalar was featured in a splashy article in last January's *Horticulture* magazine. A capable and opinionated gardener, Mrs. Bakalar will discuss design in the perennial border. Learn basic lessons in color, texture and balance from someone with over 25 years of hands-on experience.

Harry Luther will bring the exotic world of epiphytes to Denver Botanic Gardens in January. Mr. Luther is

the curator of orchids and bromeliads at Selby Botanical Gardens, Florida, and has traveled extensively in South America studying and photographing these plants.

Former director of the U.S. National Arboretum John Creech presents "Japan—A Treasurehouse of Wild and Cultivated Plants" in February. Dr. Creech is a preeminent plant hunter with many major introductions to his credit. He is well-qualified to share his excitement of Japanese plants having explored the country in six plant collecting trips that extended for more than two years and numbered several thousand collections.

Finally, the curator of the National Herb Garden, Washington, D.C., Holly Shimizu will share some of the sensuous pleasures of herbs in her March program. Ms. Shimizu is an accomplished horticulturist who has presented numerous popular programs throughout the country. She has a broad range of work experience as well including a summer at Longwood Gardens, three years in Europe at the Hillier Arboretum and Wisley in England, the Arboretum Kalmthout in Belgium and the Hatt Nursery in West Germany.

Descriptive brochures describing the Bonfils-Stanton Lecture Series will be sent to all members and will include registration details. Meanwhile, save the second Tuesday of your winter months for lively presentations by some of the best horticultural speakers available.

Plant Conservation News: Bulb Buyers Beware

Americans plant over a billion bulbs each year. Most of them are hybrids produced by nurseries, especially in Holland. Bulbs labeled as "wild," "species," or "botanicals," however, may have been collected from the wild in Turkey, Spain, South Africa, Central Asia or even the United States. Unless properly regulated, this collecting can force these species to extinction.

The Natural Resources Defense Council has surveyed 25 nursery catalogs offering bulbs. Surprising as it seems, some of the bulbs most commonly offered for sale may have been wild-collected—even when these same species are available as propagated plants. Snowdrops (*Galanthus* spp.) are one example; according to a Turkish botanist who has studied the trade, Dr. Tuna Ekim, Turkey exported 28 million of them in 1983, France another 10 million.

Over a dozen of these catalogs offer snowdrops without information as to whether they are of wild or propagated origin. Three specify that they are selling *Galanthus elwesii*, a species that Turkish botanists believe to be overexploited.

Ekim reports that Turkey also exported between 11 and 13 million winter aconites (*Eranthus hymenalis* or *E. cilicia*) and unknown numbers of grape hyacinths (*Muscari* spp.) and *Crocus* spp.

The crown imperial, *Fritillaria imperialis*, is still collected in Turkey despite its widespread availability from propagation. This popular and spectacular species is sold by at least 10 nurseries.

Other types of bulbs that may be collected from the wild were formerly sought primarily by specialists, but now are entering the general market. One example is angel's tears, *Narcissus triandrus albus*, sold by six of the nurseries. Unknown numbers of *Narcissus* are being collected in Spain and Portugal; Turkey exports approximately 500,000 bulbs each year.

Another popular group of plants sometimes considered "bulbs" is *Cyclamen*. Turkey has exported millions of wild-dug cyclamens, primarily through the Netherlands. In 1984, the Netherlands reported importing 3,764,715 cyclamens from Turkey.

As a result, European conservationists created such a controversy that the European Economic Community has recently curtailed *Cyclamen* imports from Turkey.

Gardeners who wish to avoid pur-

chasing wild-dug plants face a real challenge. Virtually none of the catalogs identifies whether the bulbs offered for sale are of wild or propagated origin. Statements that bulbs are "direct from Holland" are no guarantee of propagation, because wild-dug plants are frequently re-exported. Concerned customers may well wish to inquire as to the origin of the bulbs they see offered for sale, and conscientious nursery owners can make reasonable efforts to ascertain the origin of their merchandise and then state their findings in their catalogs, or with their products.

Roses are Red, Violets are Blue On October 17 in John C. Mitchell II

Violets are also pink, coral and lavender and on Saturday, October 17, the Rocky Mountain African Violet Council will hold their annual fall sale in Denver Botanic Gardens' John C. Mitchell II Hall. This is a great time to pick up some leaves to start or that special, new violet for your collection.

Members will be present throughout the day to answer questions on the care of these popular houseplants. Some educational handouts will be provided. Small non-blooming, inexpensive leaves to start and full-grown blooming plants can be purchased with prices ranging from 75 cents to \$10.

Visit the Gardens October 17 to enjoy the colors in John C. Mitchell II Hall and learn more about this popular houseplant. Non-members need only pay the gate fee and members will be admitted at no charge.



"Hidden Treasures of the Huntington" Tuesday, October 13

Colorado Cactus and Succulent Society members invite you to attend their monthly meeting on Tuesday, October 13. Special guest John Trager of the highly acclaimed Huntington Botanical Gardens will present an illustrated program at 7:30 p.m. in John C. Mitchell II Hall.

Take in "Treasures of the Huntington" for a close look at one of the world's premier succulent collections. No admission fee will be charged.

Those interested in learning more about the society should call H.V. Rodman at 431-6777.

New Item in DBG Gift Shop

The Carve-O-Lantern Pumpkin Carving Kit

Turn ordinary Halloween pumpkins into masterpieces using this unique kit. It contains five saw blades and four small drills. Also enclosed is a book complete with directions and patterns on how to carve custom pumpkins. Fun for children, families and great for parties. It can be used to design Fourth of July-watermelon, Easter-eggplant or Thanksgiving-squash centerpieces. This is the kit being used in the Gardens' class, "Carve-O-Lantern Party," described in the Education section of this newsletter.

Price: \$10.70 (includes tax).

Egyptian Oasis and Ramses II

An "Egyptian Oasis" greets DBG visitors when they enter the Gardens' Lobby Court until October 10. Beginning October 20, "Bounty of the Nile" will provide a colorful exhibit of spices and foods of the Middle East, also in the Lobby Court. Both displays are designed to complement "Biblical Plants: The Reign of Ramses II" which is DBG's botanical look at early Egypt's Pharonic era.

Ramses II, a pharaoh who earned both respect and fear, developed a powerful Egypt during his reign from 1291 to 1224 B.C. He enjoyed a reputation as a master builder creating great architectural works. His interests included the botanical community of the Egyptian desert and the Nile River.

"Biblical Plants" and related educational exhibits and activities are scheduled at the Gardens until November 18. During this time, tours of the Coors Brewery, a papermaking workshop and a natural materials basketry class will offer new insights into the contributions of Ramses II.

Associates' Annual Business Meeting and Luncheon

Autumn is the time of year when gardeners, like members of The Associates, reflect on the previous season, prepare for winter and begin to plan for the next year.

On Wednesday, October 28, beginning at 10 a.m. in John C. Mitchell II Hall, The Associates of Denver Botanic Gardens will hold their Annual Meeting and Luncheon for Associates' members. The business meeting and election of officers begins at 10 a.m. with lunch being served at noon.

Remember the Great Getaways tour to see the wild flowers of the Pyrenees this summer? Dr. Allan Taylor will provide an opportunity to share this tour vicariously when he presents "The Secret Mountains of Spain" at 1 p.m. following the luncheon.

Guests are welcome at \$7 each and reservations can be made through Membership Chairman Alva Schloss, 333-4980, by October 21. Call Ivy Fails, Hospitality Chairman, at 698-2166, if you have any questions.

This is also the time to record your volunteer hours for the past year. If you haven't reported your time, please call Pat Hoffman, Associates' President, at 777-3674, immediately with the hours you have donated. Please try to attend the business meeting at 10 a.m. so you can learn just how valuable your role as a volunteer is to the Gardens and its future.

Annual Holiday Sale November 20-21

Prepare your gift-giving list now! DBG's annual Holiday Sale is set for Friday and Saturday, November 20-21. Holiday gifts for family, friends and home will fill John C. Mitchell II Hall.

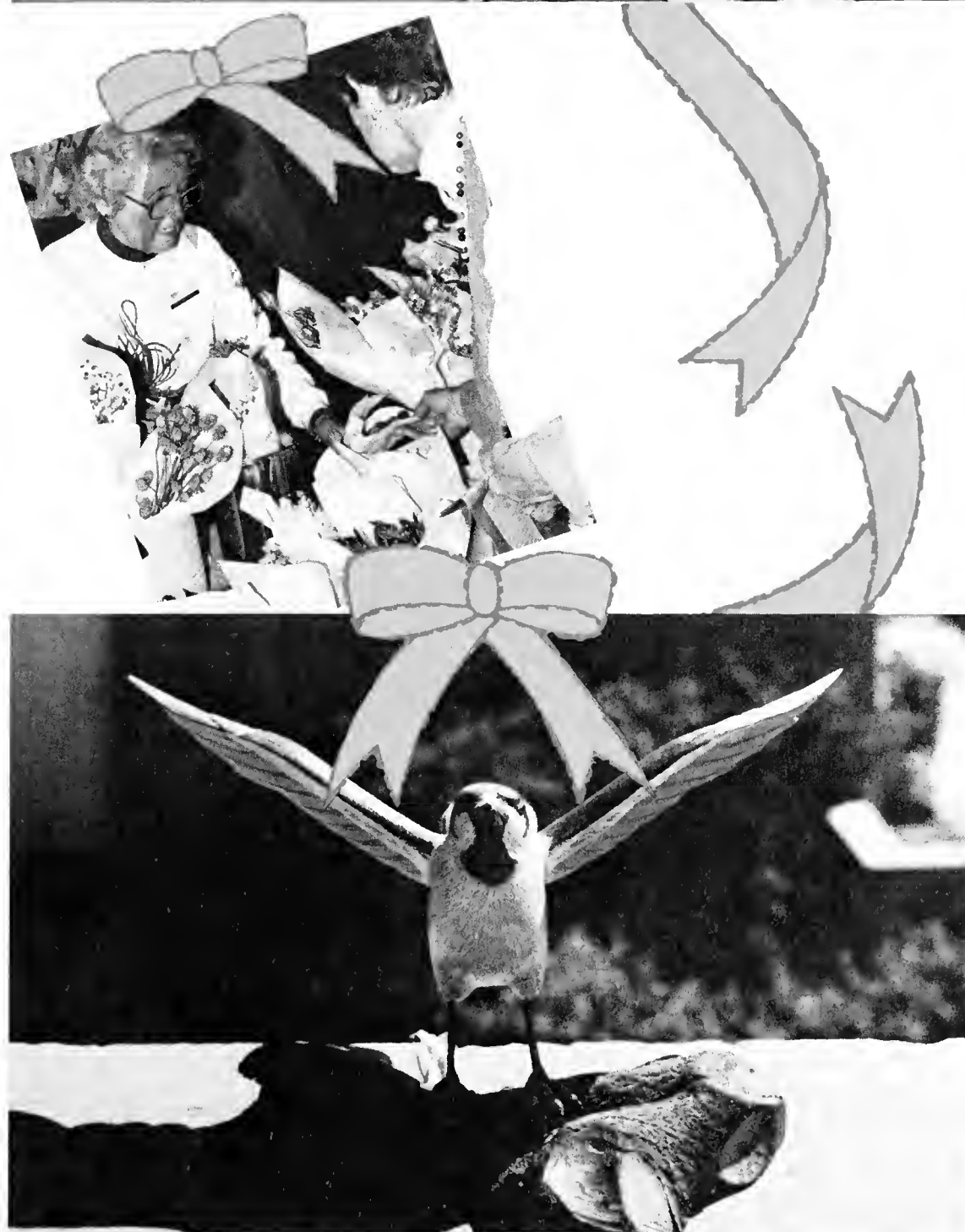
Dried everlastings have been gathered and bundled and the Guild

has prepared their traditional herb vinegars.

Admission to the Gardens will be free during both days of the sale and the outside grounds will be open. Watch the November *Green Thumb News* for a more complete listing of the many items available. Sale hours will be from 10 a.m. until 4:30 p.m. both days.



Gifts galore at the annual Holiday Sale, November 20-21



6 From Your 1987 Plant and Used Book Sale Chairman:



1987 Plant and Used Book Sale Chairman
Jeanne Ruggles

The success of the 1987 Plant and Used Book Sale resulted in large part from the efforts of a diligent group of volunteers. I would like to thank these chairmen for the donation of their time and energy with a special thanks to Joan Schwarz who is retiring her position of six years as volunteer chairman of the Rock Alpine Division of the Plant Sale. Her focus and dedication has been inspirational and she has contributed much through her leadership. We wish her well in her new pursuits.

Thanks go to the following: Mrs. Henry Adams, Mrs. Charles O. Arnold, Mrs. Peter H. Blair, Mrs. Mackintosh Brown, Mrs. John Burnett, Ms. Nancy Carmichael, Mrs. John Chalmers, Mrs. John R. Chan, Mrs. John Coombe, Mrs. Clarke Dexter, Ms. Katie Dickson, Mrs. Robert Fiori, Mr. and Mrs. Robert L. Folsom, Mr. and Mrs. Leonard Freestone, Mrs. Cal Fulenwider III, Ms. Linda Goldstein, Mrs. Leo Goto, Mrs. Richard Hamilton, Mrs. William C. Jackson Jr., Mrs. Stephen Knowlton, Mrs. Robert Kosanke, Mrs. Leon Levy, Mrs. Michael Logan, Mr. David Macke, Mrs. Kenneth Malo, Ms. Nancy Mitchell, Mr. and Mrs. Lewis Owen, Mrs. Norman Patrick, Mr. Rob Proctor, Mr. John Reber, Mr. and Mrs. Kenneth Roberts, Ms. Gesa Robeson, Mr. and Mrs. H. V. Rodman, Ms. Susan Salyards, Mrs. Joan Schwarz, Mrs. Mary Secrest, Mr. Bob Simonson, Mrs. Barrie G. Sullivan II, Mrs. Mike Washington and Mr. Ted White.

Jeanne Ruggles
Chairman
1987 Plant and Used Book Sale

Ohara Flower Arranging Demonstration and Workshop

Akiko Buckmaster, a master of Ohara Ikebana, will offer a demonstration and workshop on Saturday, October 24, at Denver Botanic Gardens. She is one of the few arrangers of the Ohara School of Ikebana in the Denver region. Beginning at 9:45 and ending at noon, the public is invited to participate in John C. Mitchell II Hall.

The Ohara School of Ikebana offers a variety of arrangements ranging from simple, spare elegance to abstracts and landscapes, emphasizing the beauty of sceneries or colorful materials found in nature.

Learn more about Ikebana from a distinguished Master. Bring a variety of flowers—tall, short, bright, white—and some foliage and unusual branches. Carry your flowers in a bucket of water to keep them fresh while working on an arrangement to take home. In addition to flowers, a container (it can vary considerably in size, shape and composition) is necessary. Registration is \$2 and participants can register at the door; the non-member admission fee will also be collected at the gate. Additional information can be obtained by calling Mrs. Daniel Wittgartner, 688-6723.

Ice House Benefit Honors San Antonio Conservationist

Mrs. Robert T. Buchanan (Sally) will be an honored guest of the Garden Club of Denver during the November 11-14 event, "Christmas at the Ice House." She will attend the Preview Party at the Ice House on November 11.

Denver Botanic Gardens and Historic Denver, Inc. are sponsors of this benefit which will raise money to implement preserving and planting an open space in lower downtown Denver.

Mrs. Buchanan has pursued a life-long commitment to the conservation of properties along the San Antonio River. A native San Antonian, she has served on the Board of the San Antonio Conservation Society for years.

As Vice President of the Society in charge of Missions, Parks and Waterways; Chairman of the Historic Preservation Seminars; and member of the Advisory Commission of the Visitor's Bureau, Mrs. Buchanan brings a unique perspective to the tradition of preservation for profit in the United States.

Tour of Coors Brewery: A Botanical Viewpoint

(one session)

Section 3 A:	Oct. 3
Section 3 B:	Oct. 3
Section 4 A:	Oct. 10
Section 4 B:	Oct. 10
Section 5 A:	Oct. 17
Section 5 B:	Oct. 17
Section 6 A:	Oct. 24
Section 6 B:	Oct. 24
Section 7 A:	Oct. 31
Section 7 B:	Oct. 31

Sections A meet on Saturdays from 10 a.m. to 1:30 p.m.; Sections B meet on Saturdays from 2 to 5:30 p.m.

Please indicate your section on the registration form.

A VIP tour of Coors' brewery takes Gardens' members and friends through the packaging, malting, brewing and filtering processes. See Coors' modern methods of turning barley into beer and taste the results. This tour is being offered as part of "Biblical Plants: The Reign of Ramses II."

In addition, participants on this tour will have an opportunity to visit the Coors greenhouse where barley is grown along with tropical plants, roses, carnations and some landscaping material.

Tours are limited to 29 and they are appropriate for children 12 and over. Ladies need to wear slacks and comfortable, closed-toe shoes because the tour will be going over open grates.

Leader: Coors staff

Meet: a van from Coors at the DBG entrance at 1005 York Street. The van leaves promptly at 10 a.m. and 2 p.m.

Fee: \$2 per participant (includes transportation)

Sketch on Saturdays

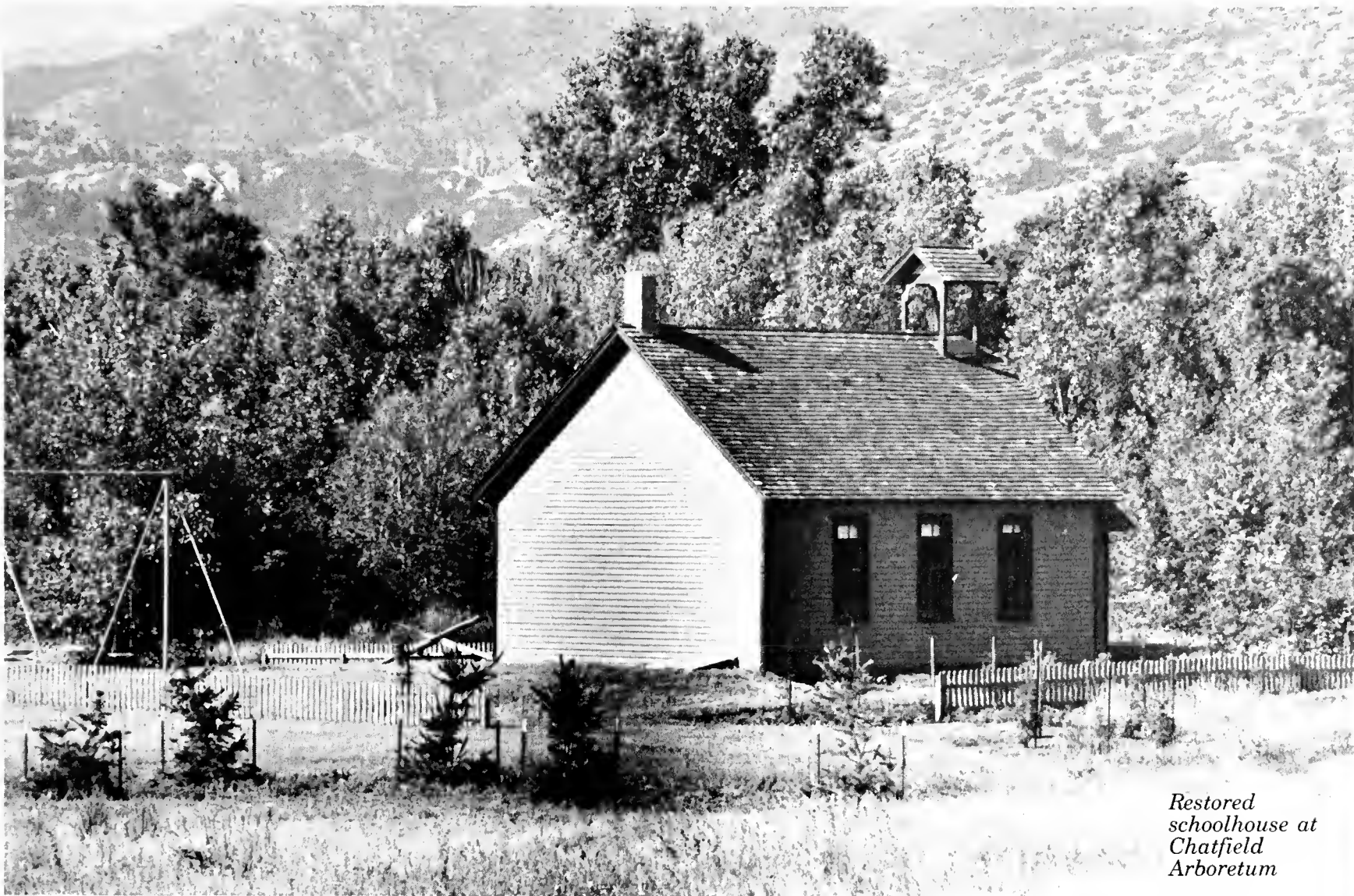
(five sessions) **Classroom A**
Saturdays, October 3, 10, 17, 24, 31
10 a.m. to 12:30 p.m.

Discover the pleasures of sketching at the Gardens in the fall. Instruction will cover basic drawing techniques and materials with an emphasis on tapping the unique creative vision of each participant.

No previous experience is necessary and materials can include drawing pencils, charcoal, colored pencils, pen and ink and pastels. Please bring drawing pencils and paper no smaller than 8½ by 11 inches to class.

Instructor: Lynette Swanson-O'Kane

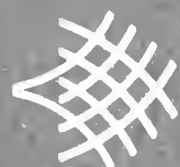
Fee: \$50 members/\$55 non-members



*Restored
schoolhouse at
Chatfield
Arboretum*

CLASSES

Fall
1987
Denver Botanic Gardens



Xeriscape Gardening

(six sessions)

**Thursdays, October 8, 15, 22, 29,
November 5, 12
7 to 9:30 p.m. Classroom C**

Reconsider traditional landscaping and use "xeriscape" or dryland concepts to add a variety of interesting plants into your garden. Learn about their different habitats, from the desert to the grasslands, and apply this information to use and grow these plants successfully.

This course will include design principles and the culture and maintenance of a wealth of plants with special emphasis on the non-traditional. Curl-leaf mountain mahogany, rabbitbrush, cliff rose and paper flowers are all examples of beautiful yet untapped dryland plants that Colorado has to offer.

Through slides, a DBG tour and the development of a class study problem, students will develop an appreciation of our natural resources and a landscape that incorporates that awareness.

Instructor: Gayle Weinstein is a botanist horticulturist at DBG and oversees all aspects of our outdoor plant collections. She has taught horticultural subjects at Ohio State University and the Aurora Public Schools Technical Center. Mrs. Weinstein has written numerous articles on dryland gardening and is the designer of the new DBG Xeriscape Garden.

Fee: \$60 members/\$66 non-members

Know and Grow Orchids

(three sessions)

**Saturdays, October 10, 17, 24
9 to 11 a.m. Classroom C**

Discover the fantastic orchid family and their basic cultural requirements in this three-session course. Following an introduction to the orchids' natural and human history, participants will learn how to develop a good collection for their homes and greenhouses.

Fundamentals of soil media, watering and fertilizer will be covered through lectures and demonstrations. Each student will have the opportunity to take a division home following a hands-on dividing and repotting session.

Instructor: Botanist-Horticulturist Larry Latta oversees the DBG greenhouse collections. An orchid hobbyist for over 15 years, he has collected in the wilds of Ecuador, Venezuela and eastern Mexico.

Fee: \$24 members/\$26.50 non-members

Limit: 18

Living Cells of Plants and Microscopic Organisms

(four sessions)

**Saturdays, October 10, 17, 24, 31
9:30 to 11:30 a.m. Classroom B**

The exciting microscopic world will be revealed while learning how to manipulate the compound microscope. Methods of preparation of materials for inspection, culturing of selected kinds of organisms and preparation

of slides to show living cells will all be covered plus more.

Additional enjoyment will include the discovery and identification of the "wee beasties" that thrive in local pond waters.

Instructor: Moras Shubert, Ph.D.

Fee: \$37 members/\$40 non-members (includes \$5 for materials)

Limit: 12

Fall Woody Plant Identification

(four sessions)

**Saturdays, October 10, (skip Oct. 17), 24, 31,
November 7**

1:30 to 4:30 p.m. Classroom A

Learn to identify the many beautiful trees and shrubs that are grown in our region and at Denver Botanic Gardens. In this introductory course in plant recognition, students will learn to identify many of the more common genera of evergreen and deciduous trees and shrubs.

Each class meeting consists of a brief lecture followed by ample field study to provide hands-on experience with the plant material.

Instructor: Gayle Weinstein

Fee: \$48 members/\$53 non-members

Limit: 15

Botany for Beginners

(four sessions)

Wednesdays, October 14, 21, 28,

November 4

7 to 9 p.m. Classroom B

This is a course for those who have no background in botany but wish to know more about plant parts and what they do. This is fundamental if you wish to know how to identify plants; it will also help you appreciate what plants require.

Some microscope work as well as greenhouse tours are included.

Instructor: Moras L. Shubert, Ph.D., is Professor Emeritus of Botany at the University of Denver and has over 30 years of teaching experience.

Fee: \$32 members/\$35 non-members

Limit: 15

Bird Behavior Study

(four sessions)

Thursdays, October 29, November

5, 12, 19

6:30 to 8:30 p.m. Classroom A

Are you puzzled by certain avian activities? Just what enables birds to fly so well? Topics in migration, territory, song, courtship, food acquisition and bird anatomy will be discussed in this four-week course.

Mounted and preserved bird specimens will be observed. Find out why some woodpeckers disperse ants throughout their feathers and learn why birds sunbathe or take dust baths. Enhance your birdwatching beyond simple identification and learn the hows and whys. Extensive hand-outs will be provided.

Instructor: Tina Jones

Fee: \$32 members/\$35 non-members

Colorado Conifers and their Natural History

(two sessions) Classroom B

Tuesday, Oct. 27 from 6:30 to 8:30 p.m.

and

Sunday, Nov. 1 from 2 to 4 p.m.

Can you distinguish a one-seeded juniper from a Utah juniper? Learn how to correctly identify Colorado's native junipers, pines, spruces and firs from characteristics such as cones, needles and bark.

Look at cut cross sections and discuss annual rings. Specific plants, animals, climate and soil associated with our evergreens will all be covered.

After a brief meeting in the classroom, the second meeting will consist of a field trip on the DBG grounds. Please bring materials to take notes, a hand lens and a single-edge razor blade or small, sharp knife

to cut plant materials.

Instructor: Tina Jones

Fee: \$16 members/\$17.50 non-members

Papermaking Workshop: From Plants to Paper

(one session)

Saturday, October 3

10 a.m. to 3 p.m.

DBG's Morrison Center

Experience the art of papermaking in this one-day class. Make flat sheets from cotton rag pulp and experiment with the addition of plant material such as flower petals. Demonstrations and a discussion of other suitable plant fibers such as papyrus and cattails will also be provided and a slide presentation on papermaking techniques throughout the world will be given.

Please bring a sack lunch.

Instructor: Ray Tomasso received a master's degree in fine arts from the University of Colorado and has extensive teaching experience. His work is included in many permanent collections throughout the United States.

Fee: \$20 members/\$22 non-members (includes all materials)



Watercolor Painting

(five sessions) Classroom B

Thursdays, October 1, 8, 15, 22, 29
10 a.m. to 12:30 p.m.

Explore the sparkle and delicacy of watercolor painting while enjoying the natural setting of Denver Botanic Gardens. This course will cover the basic materials and techniques of watercolors with emphasis on the freedom of personal expression.

Come prepared with supplies. You'll need: a 1 1/2-inch flat brush, a #10 round brush, watercolor paper, tissues, container for water, plastic palette and cake or tube watercolors.

Instructor: Lynette Swanson-O'Kane is a graduate of the Philadelphia College of Art and is a professional artist with national representation of her work.

Fee: \$50 members/\$55 non-members

Natural Materials Basketry Techniques

(five sessions)

DBG's Morrison Center

Tuesdays, October 6, 13, 20, 27,
November 3

Section I: 12:30 to 4 p.m. except
October 6 when the
class meets until 4:30
p.m.

Section II: 6:30 to 10 p.m. except
October 6 when the
class begins at 6 p.m.

Please indicate your section on the registration form.

Locally gathered plant materials create wonderful textures and visual excitement when they are incorporated into baskets. Learn the specifics of collecting, preparing and using cattails, grapevines, iris, bulrushes, bark and others.

Students will make one basket each session using five different construction techniques.

Please bring kitchen or garden shears, awl, jackknife, clothespins (pinch-type) and an old towel.

Instructor: Robin Taylor Daugherty is a fiber artist with considerable teaching experience. She has taught weaving, spinning, felting, tapestry-making and basketry throughout Colorado and her work is exhibited widely.

Fee: \$95 members/\$105 non-members (includes \$35 for the construction materials for five baskets).

Basketry Workshop: Western Cherokee Double-Woven Basket

(one session)

9 a.m. to 4 p.m. Morrison Center

Section I: Friday, October 9

Section II: Saturday, October 10

Please indicate your section on the registration form.

The Cherokee Indians have a very rich tradition of basket weaving. After moving to Oklahoma from their Carolina homeland, they adapted their designs to the materials that were locally available such as buckbrush and honeysuckle.

Learn to make this basket from reed. Its style varies widely from very small to sewing basket size and lids are often included on the larger ones.

Because the baskets are not large, participants should be able to weave two baskets and possibly a lid in this all-day workshop. Please bring sharp, pointed scissors or kitchen shears, awl, tape measure, an old towel and your lunch to class.

Instructor: Robin Taylor Daugherty

Fee: \$25 members/\$27 non-members (includes \$5 for materials)

Western
Cherokee basket
with lid



Christmas Ornaments from Straw and Wheat

(one session)

10 a.m. to 3:30 p.m.

DBG's Morrison Center

Section I: Wednesday, Nov. 4

Section II: Saturday, Nov. 7

Please indicate your section on the registration form.

Come and learn how to make ornaments from straw and wheat, a craft many Scandinavians do each winter for the holiday season. You will make snowflakes, wreaths, horses, angels and various other unusual tree ornaments. The fee includes wheat for the six or seven ornaments that will be made in class as well as some to take home for others.

Please bring a ruler, scissors and a sack lunch to class.

Instructor: Maureen McGowan

Fee: \$25.50 members/\$28 non-members (includes a \$5.50 materials fee)



Beginning Wheat Weaving

(three sessions)

Mondays, November 9, 16, 23

7 to 9 p.m. Classroom B

Wheat weaving, also known as corn dolly plaiting or straw decoration work, is a centuries-old craft that was practiced in almost all of the grain-producing countries. In this series of workshops, students will learn how to clean and work with wheat.

Various wheat weaving techniques will be taught to complete harvest wreaths, mordifords, Welsh fans and other unique decorations.

Instructor: Maureen McGowan is a horticultural instructor and consultant who has taught various craft classes, including wheat weaving, at the Chicago Botanic Gardens and DBG.

Fee: \$30 members/\$33 non-members (includes a \$6 materials fee)

Advanced Christmas Ornaments from Straw and Wheat

(one session)

Sat., Dec. 5 10 a.m. to 3:30 p.m.

DBG's Morrison Center

This workshop is for students who have attended any of the straw or wheat classes offered at Denver Botanic Gardens. New techniques of braiding and plaiting will be taught and participants can expect to complete five or six different ornaments for their holiday tree. Projects include an angel, bell and a five-pointed star.

Please bring a ruler, scissors and a sack lunch to class.

Instructor: Maureen McGowan

Fee: \$25.50 members/\$28 non-members (includes a \$5.50 materials fee)

Basketry Workshop: The Hearth Basket

(one session)

Saturday, November 14

9 a.m. to 5 p.m.

DBG's Morrison Center

Use this traditional basket to carry kindling or store firewood. It is a large open basket, approximately 22 inches by 29 inches and 17 inches high, constructed with a "market basket" handle.

No previous experience is necessary. Please bring an old towel, kitchen or garden shears, awl and tape measure to class as well as a sack lunch.

Instructor: Robin Taylor Daugherty

Fee: \$35 members/\$37.50 non-members (includes \$12 for materials)

Limit: 12



More Chair Caning

(five sessions)

Tuesdays, November 10, 17, 24

December 1, 8

7 to 9 p.m.

DBG's Morrison Center

Learn an age-old craft. Replace that sagging or broken seat in your hand cane, pressed cane, rush or reed chair. With homework, you can expect to complete at least one project during this course.

No previous experience is necessary. Materials will cost approximately \$10-\$20 and can be purchased at the first session. The instructor will contact each student prior to class to discuss each project.

Instructor: Jill Goldberg is a self-proclaimed "cane addict" who learned the art from her mother. She has taught numerous courses and operates her own business, "The Able Caner."

Fee: \$40 members/\$44 non-members

Limit: 10

Pine needle basket (left) and bulrush basket by Robin Taylor Daugherty

Wheat weavings by instructor Maureen McGowan

Calligraphy—The Italic Hand

(six sessions)

DBG's Morrison Center

Section I: Mondays, October 5, 12, 19, 26, November 2, 9 from 1:30 to 3:30 p.m.

Section II: Wednesdays, October 7, 14, 21, 28, November 4, 11 from 7 to 9 p.m.

Please indicate your section on the registration form.

This introductory course in the italic hand is designed for the beginner and experienced student who wants to expand skills or brush up on the italic hand. Emphasis will be on learning the basic letter structure of the italic alphabet.

Design, color and history of the alphabet are included. A materials list will be provided after registration.

Instructor: Alicia McKim studied art at Western State College and is a freelance calligrapher whose work is exhibited widely.

Fee: \$48 members/\$53 non-members

Design Your Own Botanical Cards

(three sessions)

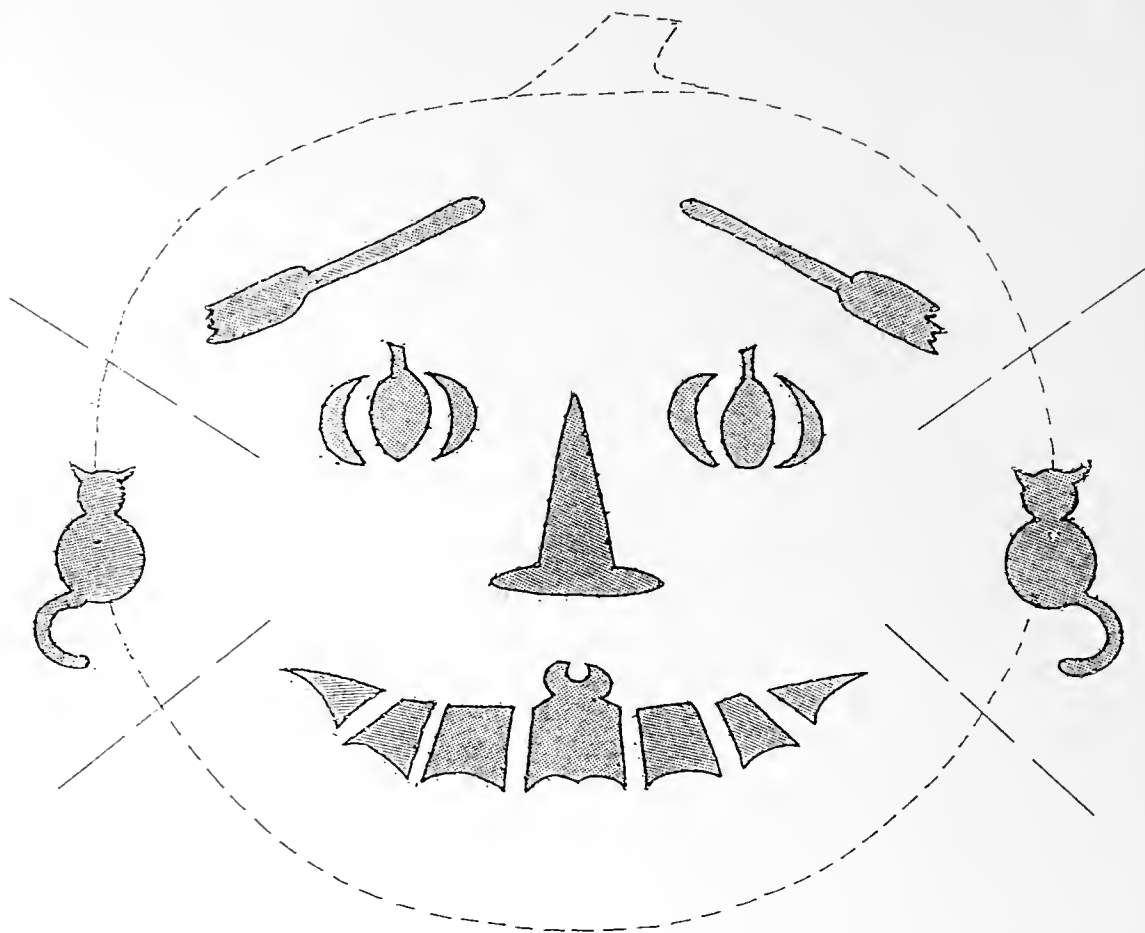
Tuesdays, November 17, 24, December 1

9:30 to 11:30 a.m. Classroom B

Have you ever wished you could design and send handmade holiday or note cards? This is your chance to get organized and do just that.

In this course, students will draw holiday greens, cones and flowers from the Gardens. After designing a personal card, it will be copied using a color xerox process to eliminate tedious hand-coloring.

Finished cards will measure 5½ by 4¼ inches and will be blank inside. Each student will receive 25 cards and envelopes; more cards are available at a cost of \$13 for each additional 25.



Instructor: Angela Overy received her National Diploma of Design from London University, England and designed in London, New York and San Francisco before settling in Denver. Over the years, many DBG students have found a new interest and ability in her lectures and classes.

Fee: \$37 members/\$39.50 non-members (includes a \$13 materials fee for 25 cards and envelopes)

Limit: 20

For Parents and Children Carve-O-Lantern Party

(one session)

Saturday, October 31

DBG's Morrison Center

Section I: 10 a.m. to noon

Section II: 1 to 3 p.m.

Please indicate your section on the registration form.

Celebrate Halloween in a pumpkin

carving party. Using a special Carve-O-Lantern kit, children 8 and over and a parent will make incredible jack-o-lanterns. This is your chance to get wildly creative and turn an ordinary pumpkin into a masterpiece. Afterward, sip cider and nibble on roasted pumpkin seeds.

Please bring one or two pumpkins of any size to class.

Instructor: Tina Goldstein is a fiber artist who studied at the University of Northern Colorado. She is a champion pumpkin carver whose "Cheshire Cat" won the grand prize in the 1986 Carve-O-Lantern Contest.

Fee: \$10 members/\$11 non-members (Fee covers one parent and one child as well as one pumpkin carving kit.)

**Denver Botanic Gardens
909 York Street
Denver, Colorado 80206**

Fees for courses should be paid in advance by check or money order made out to Denver Botanic Gardens. Since the space is limited in many courses, registration should be mailed in promptly. Your registration will NOT be acknowledged. Your name will be placed on the class list the day your money is received. No enrollments for class by phone please. All courses given are subject to a minimum enrollment of ten students. For further information, please call 575-3751.

Registration Form for Classes and Field Trips

The enclosed check, in the amount of _____, is to cover the registration fees for the following classes:

Name and section of classes _____

Name _____

Address _____

City _____ State _____ Zip _____

Home Tel. No. _____ Business Tel. No. _____

Member of Denver Botanic Gardens? ☐ Yes ☐ No



Gardening Tips for October by the Drs. Green

This Month

Procrastinating gardeners frequently wonder how late trees, shrubs and bulbs may be safely planted in the fall. Our cooler autumn weather is a good time to plant, providing the ground is still workable.

DBG Botanist Horticulturist Gayle Weinstein cautions that winter watering may be necessary during the dry spells that frequently occur in our climate.

As far as bulbs are concerned, the recommended depth is usually 2½ to 3 times the height of the bulb. Consider planting tulips and some of the smaller, earlier "minor" bulbs deeper, however.

Planting tulips at a depth of 10-12 inches will allow you to add bedding plants in your flower border without disturbing the bulbs. Also, deep planting discourages the formation of bulblets at the base and the bulbs will perform well for more seasons. Keep in mind that the stems will be a little shorter and the flowers produced a little later.

Deeper planting of smaller "bulbs" (actually corms) such as crocus will discourage hungry rodents from digging them up.

Q *I was given a flowering maple for my birthday and I'm wondering if I can leave it outside. Is it hardy?*

A Flowering maple (*Abutilon* spp.) is a native of tropical South America and will not overwinter outdoors here in Colorado. Named for its maplelike leaves, this member of the hibiscus family produces bell-shaped flowers that are pink, white or yellow.

Cultural requirements include a bright, sunny location with slightly cooler nights. Allow the soil to become moderately dry between waterings. Regular pinching and pruning will ensure a well-shaped specimen.

Q *What is the secret to getting last year's poinsettia in bloom for Christmas?*

A Poinsettia (*Euphorbia pulcherrima*) flowers develop only on plants that have been given a special period of long nights (or short days). At least 14 hours of uninterrupted darkness each day for approximately 40 days will encourage blooms in time for the holidays.

Put your plant in a closet or storage room from late afternoon until morning at the beginning of October. Commercial growers cover their poinsettia benches with black cloths to achieve the same results.

Incidentally, the true flowers of this plant are rather inconspicuous. They are small, usually sticky, greenish-yellow nubs produced amid the red bracts that resemble petals.

Q *Is there a difference between a Christmas cactus and a Thanksgiving cactus?*

A Thanksgiving cactus (*Zygocactus truncatus*) commonly blooms in November and Christmas cactus (*Schlumbergera bridgesii*) blooms in December. They are both epiphytic plants that are at home in the tropical rain forests. Unlike their desert-dwelling cousins, these cacti need a soil that is kept moist during the growing season. Full sun is also important.

Although providing short days (refer to poinsettia question) will encourage flowers, most home gardeners find it far easier to set the plant in a cool location in September and October. Night temperatures of approximately 55 degrees will promote bud development, regardless of day length.

Buds often drop and fail to develop on plants that are grown in warm, dim spots.

Q *I was told my ferns would be healthier if grown near a pebble tray. How do I construct one?*

A Now that the heat is on in our homes, it becomes harder to maintain the moist, humid atmosphere

that many houseplants prefer. The slow evaporation of water from a shallow pan provides increased humidity more like their native rain forest atmosphere.

Use a metal or plastic tray since the porous walls of clay saucers could cause staining of rugs or windowsills. Fill with small stones or gravel and add water so that it is just below the tops of the pebbles. The plants are then set on top. If the water level is kept too high, root rot could develop.

Q *How do I pot up the amaryllis bulb I just bought? How soon will it bloom?*

A Since amaryllis bulbs readily flower from year to year, your purchase is a good investment.

Plant your bulb in a deep pot that is one inch wider than the diameter of the bulb. Containers should have holes in the bottom and a layer of coarse material for good drainage. Plant in commercial potting soil or a mixture of two parts soil to one part peat moss.

Set the bulb so the top half is above the surface of the potting medium. Firm the soil and water well but do not allow it to stand in water. Then, water sparingly until the flower stalk appears. Too much moisture at this point may stimulate the development of foliage only.

As the blooming stalk elongates, water more plentifully and be sure to give ample water when the flower buds are about to open.

After planting, flowering usually occurs within four to six weeks and it's not uncommon for a second flower stalk to develop before the first flowers are finished.

The Drs. Green welcome your comments and questions for possible inclusion in this column. Please contact them by writing to: Drs. Green, Denver Botanic Gardens, 909 York Street, Denver, Colorado 80206.

COLORADO

Regular Meetings of Plant Societies
A number of plant and horticultural groups meet fairly regularly at the Denver Botanic Gardens. Here is a listing of those groups and a general indication of when they usually meet. For more specific meeting times and locations as well as for information on how to contact a representative of the group, please call the Botanic Gardens switchboard during business hours at 575-3751.

African Violet Society, 4th Thurs. of 7 months; **Bonsai Society**, 1st & 3rd Tues.; **Cactus & Succulent Society**, 2nd Tues.; **Civic Garden Club**, 1st Fri.; **Colorado Native Plant Society**, 4th Wed.; **Gloxinia Gesneriad Growers**, 1st Sat.; **Hemerocallis Society**, 3rd Sun. of 4 months; **Ikebana International**, 4th Fri.; **Iris Society**, spring & fall dates; **Men's Garden Club**, 4th Thurs.; **Mycological Society**, 2nd Mon.; **Rock Garden Society**, 3rd Wed.; **Rose Society**, 2nd Thurs.; **Ultra Violet Club**, 4th Mon.; **Water Garden Society**, 2nd Sun. of 5 months.

A	L	E	N	D	A	R
S	M	T	W	T	F	S
		October 1-31 Biblical Plants: The Reign of Ramses II		1 Watercolor Painting*	2	3 Papermaking Workshop, Sketch on Saturdays*
4	5 Calligraphy— The Italic Hand*	6 Natural Materials Basketry Techniques*	7 Calligraphy— The Italic Hand*	8 Xeriscape Gardening*	9 Western Cherokee Double-Woven Basket	10 Fall Woody Plant ID*, Living Cells of Plants*, Orchids*
11	12	13	14 Botany for Beginners*	15	16	17 African Violet Sale, Free Day for Denver City/County Residents
18	19	20	21 New Members' Orientation Party	22	23	24 Coors Tours
25	26	27 Colorado Conifers & their Natural History*	28 Associates' Luncheon	29 Bird Behavior Study*	30	31 Carve-O- Lantern Party, Coors Tours

Coming Next Month

November 1-18
Biblical Plants:
The Reign of
Ramses II

November 2
Carl Tempel
Wild Flower
Lecture

November 4
Christmas
Ornaments
from Straw and
Wheat

November 6-8
Botanical
Treasures II

November 7
Christmas
Ornaments
from Straw and
Wheat

November 9
Beginning
Wheat
Weaving*

November 10
Bonfils-Stanton
Lecture Series:
Rosalind
Creasy, More
Chair Caning*

November 14
The Hearth
Basket

November 17
Design Your
Own Botanical
Cards*

Nov. 20-21
Annual Holiday
Sale

Denver Botanic Gardens, Inc.

909 York Street
Denver, Colorado 80206
303-575-3751

October 1987

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Edible Landscaping Expert Rosalind Creasy to Speak November 10

Through the generosity of the Bonfils-Stanton Foundation, five distinguished horticultural speakers are coming to Denver Botanic Gardens this winter. There will be a lecture presented on the second Tuesday evening of each month from November through March. Each program will begin at 7 p.m. in John C. Mitchell II Hall.

The series opens on Tuesday, November 10, when horticultural expert Rosalind Creasy presents "Exploring the Vegetable Garden with Seventeen Themes." Ms. Creasy is the author of the pioneering gardening book, *The Complete Book of Edible Landscaping*, recommended by the *Wall Street Journal* as the garden book of 1982.

Believing that homeowners can have bounty as well as beauty, Ms. Creasy will present an overview of the many different themes one can apply to a vegetable garden. Six theme gardens will be described in detail: The Heirloom Vegetable Garden, Grain Garden, Italian and Mexican Vegetable Gardens, and Gourmet Salad and Edible Flower Gardens. Learn how to grow these gardens as well as how some of the finest chefs in the country cook from them. Her program is a preview of her upcoming book on vegetable gardens as gourmet additions to the home landscape.

Ms. Creasy has been an active proponent of edible landscaping since 1973. She frequently teaches, writes, lectures, appears on various radio and television talk shows and photographs extensively on many gardening subjects.

Her beautiful photographs have
continued on page 4



Green Thumb

Denver Botanic Gardens

November 1987

Number 87-11

NEWS



Inside:

"Heralding
the Season"
page 4

"Blossoms of
Light" page 4

Classes page 8

Annual Holiday Sale November 20-21

Denver Botanic Gardens' holiday season began earlier this year when the Gift Shop closed for inventory in September and the arrival of new stock heralded the upcoming holiday sale. The season also began when Guild volunteers gathered herbs to prepare their popular herb vinegar and when Around the Seasons' volunteers scurried through the flower beds collecting everlastings.

On November 20 and 21 the doors open for the Annual Holiday Sale at 9:30 a.m. and remain open until 4:30 p.m. Entrance to the Gardens and sale is without charge both days.

Veteran shoppers arrive early with lists completed for friends, family and self. Expect to find an incomparable array of items in Mitchell Hall and the Lobby Court. Bring shopping bags, if you wish, and enjoy this unique experience.

continued on page 6



Ninth Annual Carl Tempel Wild Flower Lecture Set For November 2

Well-known Colorado nature photographer and field botanist Loraine Yeatts will present the Ninth Annual Carl Tempel Wild Flower Lecture on Monday, November 2, at 7:30 p.m. in John C. Mitchell II Hall.

Mrs. Yeatts is an avid hiker who possesses a thorough knowledge of our native flora and is a highly regarded nature photographer. She spent the past summer botanizing extensively and is the Project Coordinator of a botanical inventory of Rocky Mountain National Park.

In her program, "Rocky Mountain National Park: Search for Our Botanical Legacy," Mrs. Yeatts will share some of the discoveries of her numerous plant-hunting hikes and backpack trips this past summer.

The Annual Carl Tempel Wild Flower Lecture was started in 1979 to honor the late Major General Carl W. Tempel of Fitzsimons Medical Center, who was a great photographer and lover of wild flowers. The program is without charge and all are encouraged to attend.

"Botanical Treasures II" at DBG November 6, 7 & 8

Discover for yourself the elegance of botanical illustrations at Denver Botanic Gardens when Turner Art Gallery and DBG combine resources to offer "Botanical Treasures II: A Show and Sale of Botanical Illustrations." This exhibit of choice historical and contemporary prints was very popular last year and will be presented again on November 6, 7 and 8 from 9 a.m. to 4:45 p.m.

continued on page 3

*Edible
Landscaping
Expert Rosalind
Creasy*

Holiday Linens

2 A Living Gift to the Gardens

There are many different ways to give to the Gardens and tributes, honoraria, memorials and contributions to the endowment are just a few.

This summer the Helen K. Fowler Library received a special gift. An honorarium was given in the name of O. L. (Olie) Webb as a gift in perpetuity for the library. "Kudos should go to the people who contributed to the Gardens in my name," remarked Mr. Webb.

Mr. Webb's gift to the Gardens is unique—a living gift. When he retired this past summer as Director of Environmental Affairs for the Colorado Association of Commerce and Industry, his colleagues and wife wanted to present this energetic man with a gift they hoped would have meaning. They asked Mr. Webb's friends and co-workers to give a donation to Denver Botanic Gardens specifically earmarked for the Helen K. Fowler Library. The best part is, because it was given during our Endowment Campaign, it is eligible for matching funds from the Boettcher Foundation.

"This is far more meaningful for me than some merchandise item," said Mr. Webb, who has always had an interest in plants. He minored in botany, majored in geology and zoology. He never really applied the botany until he started taking his children on mountain hikes, and they'd ask the names of plants. "I couldn't tell them. They shoved me back into the learning process."

Mr. Webb's Botanic Gardens association goes back to the late 1960s. He took courses in greenhouse culture, was affiliated with the Indoor Light Gardening Society and the Cactus and Succulent Society. His latest "kick," he admits, is perennials. In his glassed-in patio he overwinters plants and starts many hard-to-find perennials. "It's a challenge to see what I can grow from seed. More and more of my turf is in perennials; it is easier to take care of than grass."

The library is his second home. He spends his weekends there, learning about Colorado flora as well as that of other parts of the country. "The library is a great self-learning opportunity," Mr. Webb philosophizes.

"I debated," he continued, "about the form the gift should take. Did the library need the money in a lump sum, but then what about the future?" He ended up placing the money in a perpetuity type of gift, so there would be money for future acquisitions. He also plans to continue to give to the fund over the years.

"I had never heard of this being done before, but it is a unique way

to give a tool for anyone to use. You can even give anonymously this way, if you want. As people approach retirement, this is one way to think about giving a living gift."

Mr. Webb's gift was most appreciated by the Gardens. The Helen K. Fowler Library is one of the finest botanical and horticultural libraries in the western United States.

Enclosed in this newsletter you will find a tribute envelope. When you think of making a gift or donation, please consider Denver Botanic Gardens.

Great Getaways

Visit the world with the Gardens! Experienced guides will lead you to renowned gardens or unique and fascinating ecosystems and you'll take in important cultural landmarks as well.

See the Galapagos Islands, the land of Darwin's "Origin of the Species," and the exotic flora and fauna of Peru and Ecuador on the trip leaving February 26 and returning March 18, 1988. This tour will be lead by DBG's Assistant Director Andrew Pierce. In addition to exploring the Galapagos Islands, he will take you to the sacred valley of the Incas, Urubamba Valley, and to Machu Picchu, the most famous ruins in South America and home to the Incas. You will also have a chance to learn more of the disappearing rainforests when you are in Tinalandia, near Guayaquil, Ecuador.

Travel for seven days around the islands on a 90-passenger boat. The

Tributes

In honor of the 50th Anniversary of Mr. & Mrs. M. George Robinson

Mr. & Mrs. Thomas Taplin

In memory of Mrs. A. A. Billings

Mr. & Mrs. Robert S. Appel

In memory of John M. & Lena M. Calerich

Herbert, Bea and Ceph Jones

In memory of E. Bennett Horton
Webster Shipley & Associates, Inc.

In memory of Vivian B. Jenkins

Mr. & Mrs. William Y. Holland

Mr. & Mrs. Russell H. Toepfer

In memory of Sue Kelly

Gayle Weinstein

In memory of Judge John F. McGrath
Debra Hindin

In memory of Robert L. Mitton

Mr. & Mrs. Thomas Taplin

In memory of Ruth Ashton Nelson

Dr. William G. Gambill, Jr.

Barbara J. Hyde

In memory of Virginia Parks

Dale & Charlotte Wild

In memory of Caroline Person

Mr. & Mrs. Robert S. Appel

In memory of Frank R. Watson

Mr. & Mrs. Richard E. Pate III

cost for this is approximately \$4,500.

Merle Moore, Executive Director of DBG, leads you to China. This will be a first for the Gardens and it begins in early October 1988, ending approximately three weeks later. Many botanical and cultural treasures abound in China and the opportunity to experience them with a seasoned guide is now yours.

Many other exciting trips are being planned and they include a behind-the-scenes tour of the Rose Parade in January 1989, a tour of the Southwest desert in spring bloom, 1989, and an ambitious three-week tour to the Arctic in June and July of 1989, in time to experience the midnight sun.

Additional information can be obtained by calling Mr. Pierce at 575-3751, extension 18.



Green Thumb News

Number 87—11 November 1987

Published monthly by the Denver Botanic Gardens Education department, 909 York Street, Denver, Colorado 80206, and edited by Patricia A. Pachuta and Carolyn Knepp. Subscription to this newsletter is a benefit of membership in the Botanic Gardens. For membership information, please write the Membership department at the above address or call 575-3751.

Deadlines for this newsletter are: Major news stories, feature material (including photographs or artwork), and short notes are all due not later than October 19 for December, November 20 for January and December 18 for February.

Please plan in advance and meet deadlines. Late material cannot be used. Stories must be typed, double-spaced, preferably on copy paper provided by the editor. Please call the Education department at 575-3751 for details.



"Botanical Treasures II" at DBG November 6, 7 & 8

continued from page 1

Botanical prints have become coveted collectibles for various reasons. Most simply stated, however, it may be that their popularity is a result of their availability and quiet elegance.

In John C. Mitchell II Hall, during the three days of the sale, hundreds of beautifully matted and framed or matted and shrink-wrapped prints will be available in a wide range of prices.

Don't miss out on this unique opportunity to add to your current collection or do some early holiday shopping.

Ice House Preview Party—November 11

Baba Brooks, Susie Sheridan and all the members of The Garden Club of Denver extend a special invitation to DBG members and guests to join them at the Preview Party for "Christmas at the Ice House," a fundraiser for the Gardens and Historic Denver, Inc. Proceeds will go toward implementing a park in lower downtown. The Preview Party will honor Mrs. Robert Buchanan of the San Antonio Conservation Society.

Design showrooms in the Ice House will feature 15 festive holiday table settings to inspire and stimulate the season's most creative hostesses. A "Table by Tiffany" will be featured to celebrate the 150th anniversary of the Fifth Avenue store. Moreover, there will be a table from Mrs. Roy Romer and the Governor's Mansion, continued on page 4



Lemon from G. B. Ferrari's *Hesperides*, 1646. This sumptuous botanical book was the first volume entirely devoted to citrus fruits.

Spread Holiday Cheer Throughout the Year—Give a Gift Membership to the Gardens

A Denver Botanic Gardens' membership is a thoughtful gift that can be used throughout the year.

A monthly newsletter with lists of plant-related classes; a library full of horticultural books, magazines and more; and special events throughout the year are just a few of the benefits you will be providing when you give a gift membership.

Recipients receive a card informing them of your gift, plus a free plant that may be picked up at the Gardens. With memberships in various categories, you can easily find one that fits all needs. Complete the adjacent coupon, return it to the Gardens, and we'll do the rest.

Holiday Gift Membership Form

Student (full-time)	<input type="checkbox"/> \$18	Family/Dual	<input type="checkbox"/> \$ 35
Senior (65 or over)	<input type="checkbox"/> \$18	Contributing	<input type="checkbox"/> \$ 50
Senior Couple (two seniors living at same address)	<input type="checkbox"/> \$25	Supporting Advocate	<input type="checkbox"/> \$ 100
Individual	<input type="checkbox"/> \$25	Patron	<input type="checkbox"/> \$ 300
		Benefactor	<input type="checkbox"/> \$ 500
			<input type="checkbox"/> \$1,000

Donor's Name _____

Address _____

City _____ State _____ Zip _____

Recipient's Name _____

Address _____

City _____ State _____ Zip _____

Date to Mail Gift Card _____

Gift Card to be Signed _____

Please send to Denver Botanic Gardens, Membership Department, 909 York Street, Denver, CO 80206

4 Rosalind Creasy

continued from page 1

appeared in over 20 publications including *Horticulture Magazine*, *Organic Gardening Magazine*, *American Nurseryman*, *Better Homes and Gardens* and the *San Francisco Chronicle*. "Exploring the Vegetable Garden with Seventeen Themes" will be an informative and entertaining slide program featuring dozens of slides taken by Ms. Creasy on her extensive travels while researching her newest book.

Members may attend this lecture at a cost of \$2.50 each or \$10 for the entire series of five; non-members are welcome at individual programs at \$5 each or \$20 for the series. Please return the registration form in the Bonfils-Stanton Lecture Series brochure mailed to all members or use the Education department registration form on page 9. If you are bringing guests, be sure to include their names as well.

Funding by the Bonfils-Stanton Foundation has allowed us to invite five of this country's premier horticultural speakers to Denver Botanic Gardens. We sincerely appreciate their support of these outstanding educational programs and strongly encourage our members to attend.

Ice House Preview Party—November 11

continued from page 2

Opera Colorado and the Denver Art Museum.

Be the first to see these tables and to purchase unique gifts from Ice House showrooms, boutiques and displays in the historic setting of the restored Beatrice Food Creamery at 18th and Wynkoop. There is ample free parking. Tickets to the party are \$35, payable to The Garden Club of Denver, and can be obtained by calling 733-9396 or 733-9235. Cocktails and hors d'oeuvres will be served to you and your friends from 5:30 to 7:30 p.m.

If the Preview Party doesn't fit into your schedule, the table displays will be open to the public November 12 (11 a.m. to 4 p.m.), November 13 (11 a.m. to 7 p.m.) and November 14 (11 a.m. to 3 p.m.). For those interested in attending any of these days, tickets can be purchased in advance from King Soopers. Adult pre-purchase tickets are \$5 each and children's tickets are \$1. Tickets can be purchased at the door at \$6 for adults and \$1 for children under 12. The Ice House showrooms, boutiques and shops representing Denver Botanic Gardens, Molly Brown House and Four Mile House will also be open to the public November 12 through November 14.

Marjean Coleman (left) and Julie Beall decorate the grounds for the 1986 "Blossoms of Light"

Holiday Events at DBG

Members are cordially invited to attend the traditional "Heralding of the Season" celebration on Friday, December 11, from 7 to 9 p.m. This annual members-only event combines entertainment and refreshments during a preview of "Blossoms of Lights" and its "Tea and Traditions" exhibit. Although there is no charge for "Heralding the Season," members must return the reservation form on page 5 to reserve a place.

This year's "Blossoms of Light" celebration offers "Tea and Traditions" in John C. Mitchell II Hall. Period settings and carefully decorated trees will portray many of the ways evergreens have been used to symbolize and celebrate the holidays around the world. You can learn about the legends and history of the Paradise Tree and the Luther Tree as well as the Strasbourg Tree and the Tree of Tidewater, Virginia.

The Lobby Court will feature a special tree created by the staff of the Gardens and United Floral Industry. They will combine talents to create an opalescent world of contemporary design by decorating in shades of pink, white and cranberry. U.F.I. is a group of retail florists, wholesalers and manufacturers' representatives who together promote related floral activities in Colorado. Again this year, the Gardens will blossom in winter with thousands of lights draped over our trees on the

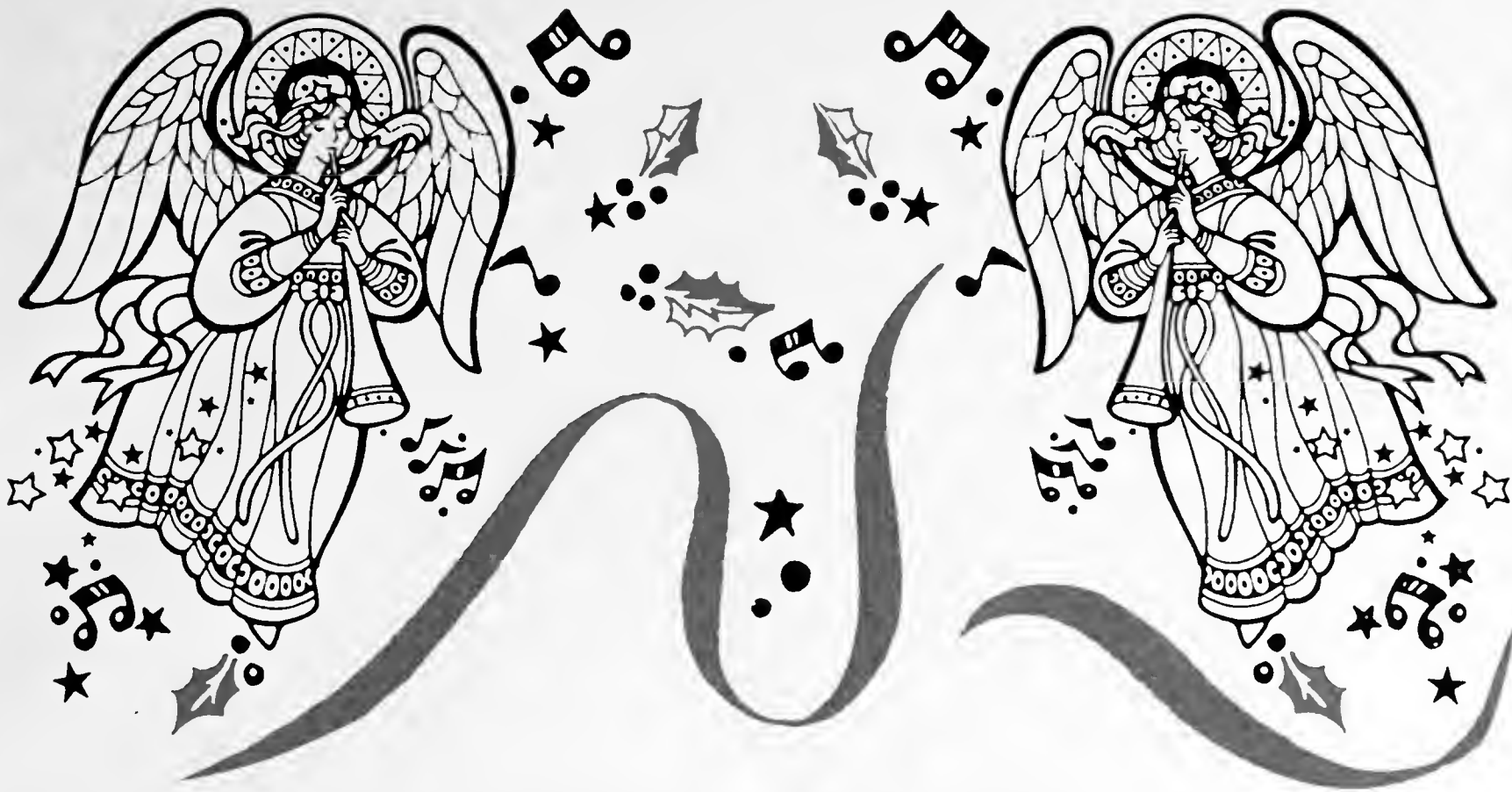
outside grounds.

Sunday High Teas in John C. Mitchell II Hall December 13 and 20 will offer traditional menus including pasties and pastries, raspberry preserves and scones, English cheeses and tea sandwiches, Devon cream and petits fours and, of course, Earl Grey and Darjeeling teas. The Tea will be catered by Greenwood Catering. Seasonal choral and instrumental music will accompany each High Tea. Tickets are \$14 each and must be ordered in advance.

New this year is the "Teddy Tea" for children, sponsored by Celestial Seasonings. Herbal teas will be served, along with a modified menu in the tradition of an English high tea. Entertainment features Judie Pankratz with her beautiful, hand-crafted marionettes that combine whimsy and surprise in the "Punch and Judy" tradition. Two "Teddy Teas" are on Saturday, December 12. Tickets are \$8 each and must be ordered in advance.

The High Teas were popular last year and we urge you to order your tickets now to assure yourself the chance to enjoy this unusual and delightful holiday celebration at the Gardens. Decorations will remain on display from December 11 until January 3, 1988. Complete and mail the reservation form on page 5 for High Tea or Teddy Tea tickets.





"Heralding the Season" Reservation Form

Friday, December 11 – 7 to 9 p.m.

A members-only event to herald the holidays and to preview "Blossoms of Light" ★

Please mail to Denver Botanic Gardens, 909 York Street, Denver, CO 80206, by December 5 to reserve space for you and your family.

Total number of participants _____

Name _____

Address _____

City _____ State _____ Zip _____

Daytime Phone _____ ★

"Blossoms of Light" Tea Ticket Reservation Form

Reservations must be received by December 1.

High Tea

Please mark your first choice [1] and second choice [2].

Reservations are for _____ participant(s) at \$14 each.

Sunday, December 13 2:00 [] 3:30 [] 5:00 []

Sunday, December 20 2:00 [] 3:30 [] 5:00 []

Teddy Tea

Please mark your first choice [1] and second choice [2].

Reservations are for _____ child(ren) and _____ adult(s) at \$8 each.

Saturday, December 12 2:00 [] or 4:00 []

Enclosed is a check for \$_____ and a stamped, self-addressed envelope for tickets.

Name _____

Address _____

City _____ State _____ Zip _____

Daytime Phone _____

Return to "Blossoms of Light," Denver Botanic Gardens, 909 York Street, Denver, CO 80206.

continued from page 1

Everlastings are plant materials that have been dried to last for years. Seed pods, berries, flowers and branches as well as corn, grasses and squashes are only some of the items to be found here. Volunteers from Around the Seasons have contributed to this highly popular aspect of the sale. You can adorn wreaths, design centerpieces or create ornaments for a tree with everlastings.

For creative ideas on other uses look to the book section of the sale where you'll find Patricia Thorpe's book, *Everlastings: The Complete Book of Dried Flowers*, Annette Mierhof and Marijke den Boer-Vlaming's book, *The Dried Flower Book*, and several other excellent references on preserving flowers and arranging with them. Many of the pods and cones can be used in classrooms as educational aids.

Fragrances dominate John C. Mitchell II Hall and they have been provided by Potpourri Workshop volunteers who have worked diligently throughout the year drying, mixing and stitching. They offer tooth fairy and tranquility pillows scented with exotic mixes, catnip mice for your felines and sachet baskets, simmering spoons and more, all designed to tantalize the sense of smell. Many people prefer to make their own potpourri and for them the sale offers blenders, fixatives, oils and anything they might need.

Look for "Dip-Dillicious" next to the potpourri items as it returns along with a newly introduced saltless herb mix.

Delicate sounds float through the Hall and they originate from various wind chimes. A Windworks chime is guaranteed to rust and you want it

to since the sounds from these chimes improve with rust.

A visit to the Orient for decorator items or Ikebana supplies isn't necessary. The Gift Shop offers a wide range of porcelain vases and figurines and tea pots with matching cups. This year, in addition to the iron tea pots of last year, a miniature tea pot created from a particular purple clay from China can be found. These pots are only used for special occasions and the contents will fill two small Chinese tea cups. Returning this year are the popular Chinese hand-embroidered bun warmers.

As previously mentioned, Guild volunteers are returning with their savory herb vinegars. These herbs are gathered from DBG's Herb Garden, dried and prepared by volunteers who used a treasured, secret recipe. Guild volunteers always provide interesting



Volunteer Mary Bellamy cheerfully assists at the 1986 Holiday Sale.



and tasty surprises.

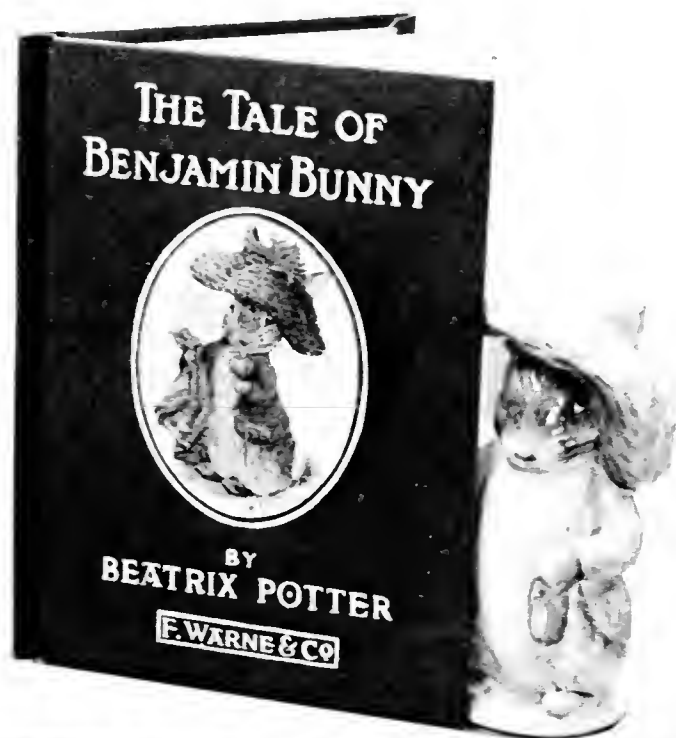
Specifically for the holidays are ornaments for the tree from the Gardens' former trees, strings of chili pepper lights with chili pepper glass ornaments or sets of 12 cranberry glass ornaments with "Twelve Days of Christmas" figures etched on each. Handmade paper holly decorations or delightful wood blocks with teddy bears popping out are also delightful ornaments. The selection goes on and on. Christmas trays and sets of cups for entertaining, wooden Christmas tree napkin rings or tin holly napkin rings, and mugs with Santa on them create festive moods for parties.

Books make great gifts and they take center stage at the sale. A well-chosen assortment includes selections for making potpourri, landscaping your yard, arranging flowers, identifying plants, growing herbs, annuals, perennials and vegetables. There are books for children by Tasha Tudor

and Cicely Mary Barker and wildlife coloring books by Roger Tory Peterson. William A. Weber's new *Colorado Flora: Western Slope* will be on the want list of many along with the new *Creme de Colorado Cookbook* and both can be found at the sale.

DBG has new T-shirts in pastels, new sweatshirts with columbines on the front and new badges with a lovely embroidered columbine framed by blue that you can stitch on your jackets or backpacks.

Children aren't always easy to entertain, but toys from the Gardens may solve the problems. And the problems may be solved by puzzles, lots of them. Small wood figurine puzzles will challenge the most active minds and larger wood puzzles will delight all. Drop water on a small sponge and you'll suddenly have a purple lion. Wind up small creatures for a "creature parade." Wouldn't these be fascinating stocking stuffers for children of all ages?

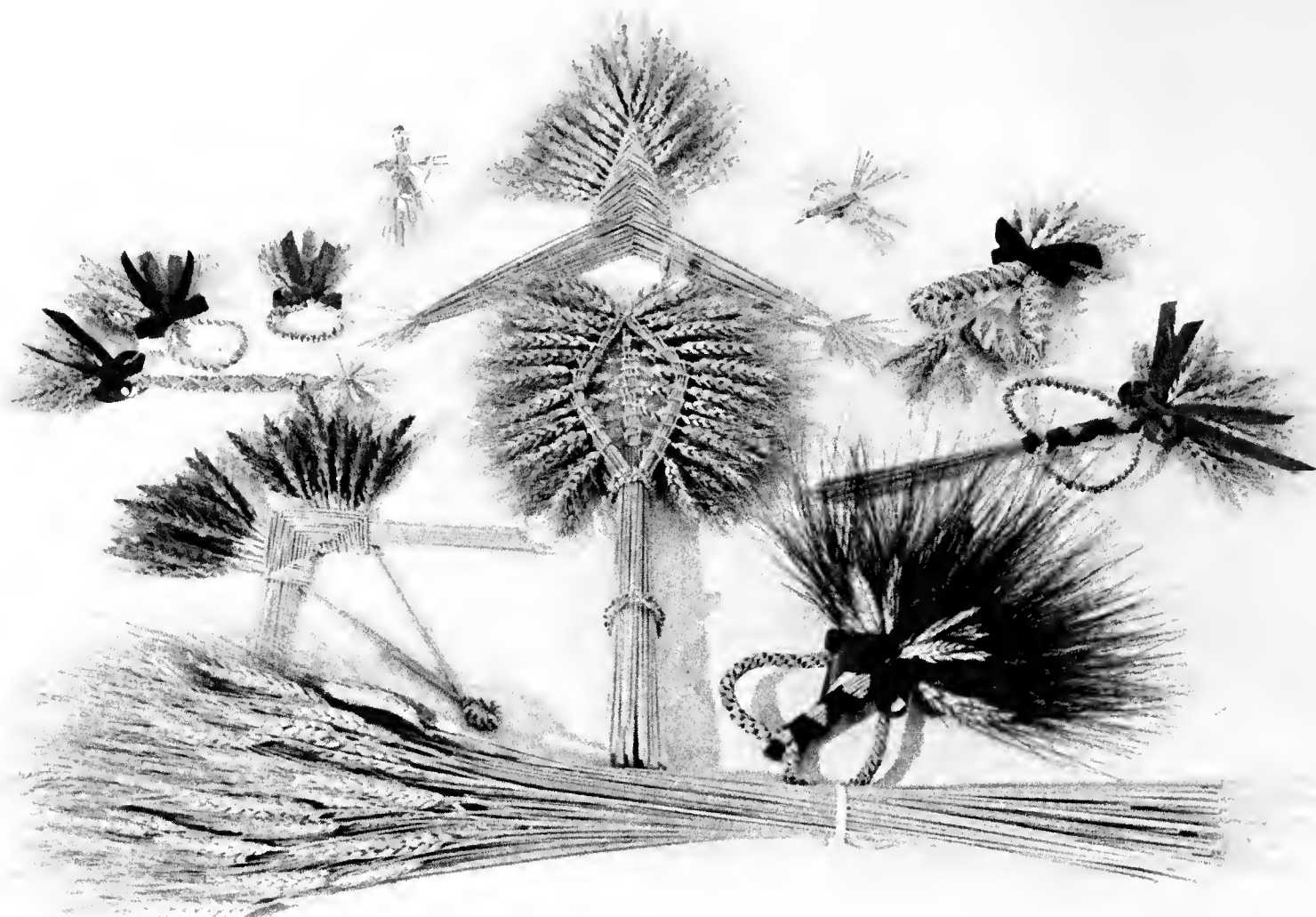


Jewelry is a perennial favorite and the ever-popular amber jewelry with botanical inclusions will be available. Venetian glass beads, semi-precious stones and cloisonne on earrings, bracelets and necklaces are certain to bring a smile to the face of a loved one.

This is a sale to be enjoyed. Take time to look through everything, as many surprises can be discovered. Your purchases are gifts for friends and family and for the Gardens.

Another suggestion is a gift of the Gardens. Look for additional information on Gardens' Membership Gifts in this newsletter. Volunteers will be at the sale to assist you with this year-round gift. Remember, there is no charge to enter the Gardens to shop Friday and Saturday, November 20 and 21, and the outside grounds will be open for you to enjoy.





Christmas Ornaments from Straw and Wheat

(one session)

10 a.m. to 3:30 p.m.

DBG's Morrison Center

Section I: Wednesday, Nov. 4

Section II: Saturday, Nov. 7

Please indicate your section on the registration form.

Come and learn how to make ornaments from straw and wheat, a craft many Scandinavians do each winter for the holiday season. You will make snowflakes, wreaths, horses, angels and various other unusual tree ornaments. The fee includes wheat for the six or seven ornaments that will be made in class as well as some to take home for others.

Please bring a ruler, scissors and a sack lunch to class.

Instructor: Maureen McGowan

Fee: \$25.50 members/\$28 non-members (includes a \$5.50 materials fee)

Holiday Wreath Workshop

(one session)

Monday, November 30

9:30 a.m. to noon

Classroom B

Create a masterpiece to enjoy from year to year. Each student will receive a 14-inch wreath to decorate. Choose from a wide assortment of plant materials such as baby's breath and dried proteas plus interesting pods and smaller cones. Make it all-natural

or enliven it with little birds or artificial fruit, all carefully selected by the instructor. Develop your own color scheme and finish it off with a perfect bow!

Instructor: Avalonne Kosanke is a master flower judge for the National Council of State Garden Clubs and has over 25 years of teaching experience.

Fee: \$32 members/\$35 non-members (includes \$20 for materials).

Limit: 15

Holiday Centerpiece Workshop

(one session)

Thursday, December 3

9:30 a.m. to noon

Classroom B

Make a very personal, rich-looking centerpiece to grace your dining room for the holidays. Students will bring a favorite container or compote and will use all kinds of seasons greens, including holly and magnolia or camellia leaves, to create an arrangement that will be ready for candles.

Choose from many kinds of materials including some for special accent and color. Besides being inexpensive, learning to do it yourself is both enjoyable and relaxing.

Please bring clippers, scissors or knife and an appropriate, non-silver

container that is tin, glass or ceramic.

Instructor: Avalonne Kosanke

Fee: \$22 members/\$24 non-members (includes \$12 for materials)

Design Your Own Botanical Cards

(three sessions)

Tuesdays, November 17, 24,
December 1

9:30 to 11:30 a.m. Classroom B

Have you ever wished you could design and send handmade holiday or note cards? This is your chance to get organized and do just that.

In this course, students will draw holiday greens, cones and flowers from the Gardens. After designing a personal card, it will be copied using a color xerox process to eliminate tedious hand-coloring.

Finished cards will measure 5 1/2 by 4 1/4 inches and will be blank inside. Each student will receive 25 cards and envelopes; more cards are available at a cost of \$13 for each additional 25.

Instructor: Angela Overy received her National Diploma of Design from London University, England and designed in London, New York and San Francisco before settling in Denver. Over the years, many DBG students have found a new interest and ability in her lectures and classes.

Fee: \$37 members/\$39.50 non-members (includes a \$13 materials fee for 25 cards and envelopes)

Limit: 20

Attracting and Feeding Backyard Birds

(two sessions)
Mondays, November 30,
December 7
6:30 to 9:30 p.m.
Classroom A

It's not too late to start feeding birds in your yard. Learn how to avoid less desirable species such as starlings and instead encourage chickadees, nuthatches, goldfinches and others.

The preferred foods of specific species, proper placement of feeders and houses and sources of inexpensive seed will all be covered.

In addition, learn which plant materials you can add to your landscape to attract even more feathered friends.

Instructor: Tina Jones is a wildlife instructor who teaches at the University of Colorado, the Denver Museum of Natural History and DBG. She is an active birder with many years of field experience.

Fee: \$24 members/\$26.50 non-members

Advanced Christmas Ornaments from Straw and Wheat

(one session)
Sat., Dec. 5 10 a.m. to 3:30 p.m.
DBG's Morrison Center

This workshop is for students who have attended any of the straw or wheat classes offered at Denver Botanic Gardens. New techniques of braiding and plaiting will be taught and participants can expect to complete five or six different ornaments for their holiday tree. Projects include an angel, bell and a five-pointed star.

Please bring a ruler, scissors and a sack lunch to class.

Instructor: Maureen McGowan
Fee: \$25.50 members/\$28 non-members (includes a \$5.50 materials fee)

Coniferous Trees for Denver

(two sessions)
Thursday, December 3
7 to 9 p.m. Classroom C
and Field Trip on Sat., Dec. 5 from 2 to 5 p.m.

This class will acquaint students with coniferous trees (both deciduous and evergreen) that are hardy to the Denver area. The majority of these trees are indigenous to the Colorado Rockies while others are from the eastern United States and western Europe.

Through the use of slides, students will observe approximately 20 species to establish an understanding of their distinguishing characteristics, natural history, culture and landscape value.

Instructor: An experienced teacher, Jeffrey Frank studied horticulture at Pennsylvania State University and earned a master's degree in landscape architecture from the University of Virginia. He is presently in private practice in Denver.

Fee: \$13 members/\$14 non-members

More Chair Caning

(five sessions)
Tuesdays, November 10, 17, 24
December 1, 8
7 to 9 p.m.
DBG's Morrison Center

Learn an age-old craft. Replace that sagging or broken seat in your hand cane, pressed cane, rush or reed chair. With homework, you can expect to complete at least one project during this course.

No previous experience is necessary. Materials will cost approximately \$10-\$20 and can be purchased at the first session. The instructor will contact each student prior to class to discuss each project.

Instructor: Jill Goldberg is a self-proclaimed "cane addict" who learned the art from her mother. She has taught numerous courses and operates her own business, "The Able Caner."

Fee: \$40 members/\$44 non-members

Limit: 10

Basketry Workshop: The Hearth Basket

(one session)
Saturday, November 14
9 a.m. to 5 p.m.
DBG's Morrison Center

Use this traditional basket to carry kindling or store firewood. It is a large open basket, approximately 22 inches by 29 inches and 17 inches high, constructed with a "market basket" handle.

No previous experience is necessary. Please bring an old towel, kitchen or garden shears, awl and tape measure to class as well as a sack lunch.

Instructor: Elaine Morrison is an experienced basketry instructor with four years of hands-on experience.

Fee: \$35 members/\$37.50 non-members (includes \$12 for materials)

Limit: 12

Beginning Wheat Weaving

(three sessions)
Mondays, November 9, 16, 23
7 to 9 p.m. Classroom B

Wheat weaving, also known as corn dolly plaiting or straw decoration work, is a centuries-old craft that was practiced in almost all of the grain-producing countries. In this series of workshops, students will learn how to clean and work with wheat.

Various wheat weaving techniques will be taught to complete harvest wreaths, mordifords, Welsh fans and other unique decorations.

Instructor: Maureen McGowan is a horticultural instructor and consultant who has taught various craft classes, including wheat weaving, at the Chicago Botanic Gardens and DBG.

Fee: \$30 members/\$33 non-members (includes a \$6 materials fee)

Facing page:
Wheat Weavings
by Instructor
Maureen
McGowan

Registration Form for Classes and Field Trips

Denver Botanic Gardens
909 York Street
Denver, Colorado 80206

Fees for courses should be paid in advance by check or money order made out to Denver Botanic Gardens. Since the space is limited in many courses, registration should be mailed in promptly. Your registration will NOT be acknowledged. Your name will be placed on the class list the day your money is received. No enrollments for class by phone please. All courses given are subject to a minimum enrollment of ten students. For further information, please call 575-3751.

The enclosed check, in the amount of _____, is to cover the registration fees for the following classes:

Name and section of classes _____

Name _____

Address _____

City _____ State _____ Zip _____

Home Tel. No. _____ Business Tel. No. _____

Member of Denver Botanic Gardens? ☐ Yes ☐ No

L I B R A R Y L I N E S

Helen Fowler Library
Volume 10, No. 4
November 1987

Librarian:
Solange
Gignac

THE REVIEWER:

Kathy
Johnson —
Assistant
Librarian,
DBG

McCall's Garden Book

By Gretchen Fischer Harshbarger.
Simon and Schuster, New York,
1968. \$15.95. SB 453 H324 1968

The beginning gardener and someone wanting comprehensive information will appreciate this basic guide. Harshbarger aims at its being all things to all people and accomplishes this quite well.

The chapter on cultivating a green thumb makes some good, down-to-earth suggestions that are very helpful to the rank beginner who doesn't necessarily know what plants need or how to approach scientific plant names.

Next, Harshbarger begins a description of climate zones and growing regions of the United States. One of the real strengths of this book is its consistent emphasis on regional differences. For example, there are lists of shade and flowering tree recommendations for each. Annual and perennial beds are suggested for cool and hot summers. USDA zones are always given for individual plants.

The last chapter covers basics for the different regions as suggested by local experts. This consists of a month-by-month agenda of garden activities and blooming times for flowers. Happily, George Kelly was consulted as our regional expert.

The reader will also find some bonus chapters, like quick gardens for first efforts or for children, preserving and drying flowers, and plant propagation. Not so unusual, but still nice, are container gardens, indoor gardening and pruning.

Try *McCall's Garden Book*. You may just find it indispensable.

Kathy Johnson

English Herb Gardens

By Guy Cooper and Gordon
Taylor. Rizzoli, New York, 1986.
\$19.95. SB 351 H5 C66 1986

English Herb Gardens, in the tradition of *English Country Gardens*, features 58 of the most notable and attractive herb gardens of present-day England. In fact, most of them are quite contemporary, having been created in the last 30 years. But, with the English countryside and so many beautiful old houses as backdrops, their newness is not apparent.

Vita Sackville-West's Sissinghurst is cited as a key inspiration for the revival of herb gardening for both its culinary usefulness and visual enjoyment. This can also be said of *English Herb Gardens*. As Rosemary Verey notes in her foreword, this book can serve as a wonderful resource

for creating all sizes, shapes and styles of herb gardens, as well as a useful catalog of "must see's" for those planning an English garden tour.



Included for each garden are a short text, describing its history and notable features, and a color photograph aimed at capturing the spirit of the place. The photography is outstanding, especially considering the challenges of English weather. Clive Bournsnel includes "Photographic Notes" with technical details to help the travelers with their pictures. This, paired with the list of "Gardens Open to the Public," makes for a practical travel guide.

Included in the "Glossary of Herbs" are history, cultural information, uses and a photograph for each of 42 culinary and/or decorative herbs.

Anyone not already interested in herbs will easily be drawn to them by the beauty of these gardens and the enthusiasm of the authors.

Kathy Johnson

Gardening Tips for November by the Drs. Green

This Month

By now frost has cut its first swaths through your garden. During this last month of fall, you can anticipate the rewards of your diligent efforts of the past growing season: carefully stored fruits, jams and preserves; summery vegetables, relishes, pickles; sweet loaves of tightly wrapped vegetable breads; and small bundles of fragrant herbs.

Because your gardens no longer provide a source of fresh flowers to complement your home-grown meals, you may want to consider the following hints for collecting and using dried flowers and other plant parts.

First of all, many of the prettiest, most useful of these plants are not even garden-grown. They can be found along roadsides, ditches and alleys. Even here on the High Plains and in the foothills west of Denver the possibilities are nearly limitless, so your choice will depend on your taste and your intended use. But, gather them quickly before the snow flies.

Almost without exception, grasses are decorative when used alone or in combination with other plants. They can be used as found because their stems remain stiff for arrangements and their heads stay intact nearly indefinitely.

Among the smaller, easily located grasses are blue gramma (*Bouteloua gracilis*), with thin arching one-sided heads; side oats (*B. curtipendula*), from whose thin, stiff stems dangle delicately bracted seeds or flowers; and Indian rice grass (*Oryzopsis hymenoides*), so pale and wiry that a simple bud vase of this small grass set in front of a mirror creates a marvelous cloudlike effect.

More boldly textured grasses are Canadian wild rye (*Elymus canadensis*); smooth brome (*Bromus inermis*), stiff and erect and lacking the hairiness of most other grasses; big bluestem (*Andropogon gerardii*); and timothy (*Phleum pratense*), a favorite pasture and hay grass with neat heads of stiff bristles.

Other plants of the grass family whose seed heads and leaves are suitable for arrangements and wreaths are, of course, the corns: popcorn, the variously colored Indian corns and garden sweet corn. The shucks of these should be pulled backward over the stem while they are still pliable and then left to dry. If you allow them to dry while the cob is still covered, the shucks can be softened for peeling by soaking the whole ear in water for 15 minutes.



Other wild seed heads and pods you can use in arrangements are the milkweeds (*Asclepias* spp.), common in moist bar ditches and similar places; virgin's bower (*Clematis* spp.), which offers feather pompoms on a vining stem; dock (*Rumex* spp.), whose dark, chocolate-colored seed heads are coarse and should be used judiciously as dramatic accents in large arrangements; mountain mahogany (*Cercocarpus montanus*), a shrub whose stems of interestingly spiraled, fluffy seeds are very effective in informal arrangements; and moth mullein (*Verbascum blattaria*), with loose panicles of dark pealike pods.

Many flowers dry to nearly the same pleasing hue as when fresh so no further treatment is necessary for them to add a bit of color to muted autumn arrangements. Natives in this category include gayfeather (*Liatris punctata*), with pink flowers arranged in a showy, erect spike; sulphur flower (*Eriogonum* spp.), whose inflorescences are in various shades of yellow to white; prairie clover (*Dalea purpurea*), whose cone-flowerlike flowers retain tiny lavender flowers; and snakeweed (*Gutierrezia sarothrae*), which looks almost like a tiny rabbitbrush and can be used whole or in parts in small to miniature bouquets. All of these flowers may be dried by hanging them in small bunches like most herbs.

Fall Planting

Dedicated gardeners remember that November is planting time. Yes, there are many plants that should be seeded outdoors this time of year while the

ground remains unfrozen.

DBG Plant Propagator Jim Borland reminds us that the seeds of nearly all hardy trees and shrubs will benefit from the alternating periods of warm and cold temperatures that winter will bring us.

In particular, now is the time to plant seeds of walnut, maple, ash, oak and horse chestnut trees as well as all conifers. Shrubs such as viburnums and roses should also be seeded.

All of these can be sown in the spot where you want them to grow, but the soil must be prepared well with abundant organic matter and you must not let them dry out, even briefly, until they've germinated next spring.

Can you remember where they are? Will you visit them with additional water during the long dry spells we often have in our Colorado winters?

It's better to prepare a special seed bed, located where it will be easy to watch and water it. Cover the seeds lightly with soil and water them well when you plant them, then mulch the bed with leaves or straw to hold the moisture in the soil. Transplant the newly germinated seedlings to their permanent location next spring.

The Drs. Green welcome your comments and questions for possible inclusion in this column. Please contact them by writing to: Drs. Green, Denver Botanic Gardens, 909 York Street, Denver, CO 80206.




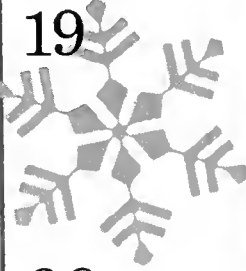


C

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Regular Meetings of Plant Societies

A number of plant and horticultural groups meet fairly regularly at Denver Botanic Gardens. Here is a listing of those groups and a general indication of when they usually meet. For more specific meeting times and locations as well as information on how to contact a representative of the group, please call the Botanic Gardens switchboard during business hours at 575-3751.

African Violet Society, 4th Thurs. of 7 months; **Bonsai Society,** 1st & 3rd Tues.; **Cactus & Succulent Society,** 2nd Tues.; **Civic Garden Club,** 1st Fri.; **Colorado Native Plant Society,** 4th Wed.; **Gloxinia Gesneriad Growers,** 1st Sat.; **Hemerocallis Society,** 3rd Sun. of 4 months; **Ikebana International,** 4th Fri.; **Iris Society,** spring & fall dates; **Men's Garden Club,** 4th Thurs.; **Mycological Society,** 2nd Mon.; **Rock Garden Society,** 3rd Wed.; **Rose Society,** 2nd Thurs.; **Ultra Violet Club,** 4th Mon.; **Water Garden Society,** 2nd Sun. of 5 months.

A	L	E	N	D	A	R
S	M	T	W	T	F	S
1 November 1-18 Biblical Plants: The Reign of Ramses II	2 Carl Tempel Wild Flower Lecture	3	4 Christmas Ornaments from Straw and Wheat	5 	6 Botanical Treasures II	7 Botanical Treasures II Christmas Ornaments from Straw and Wheat
8 Botanical Treasures II	9 Beginning Wheat Weaving*	10 Bonfils-Stanton Lecture Series: Rosalind Creasy, More Chair Caning*	11 	12	13	14 The Hearth Basket
15 	16	17 Design Your Own Botanical Cards*	18	19 	20 Annual Holiday Sale	21 Annual Holiday Sale
22	23	24 	25	26	27	28 
29	30 Attracting and Feeding Back- yard Birds*, Holiday Wreath Workshop		December 11 "Heralding the Season"	December 12 Teddy Tea December 13 High Tea December 20 High Tea	December 25 DBG Closed	*First meeting of a class with more than one session

Coming Next Month

December 3 Holiday Centerpiece Workshop	December 5 Advanced Christmas Ornaments from Straw and Wheat	December 8 Bonfils-Stanton Lecture Series: Elsa Bakalar
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Denver Botanic Gardens, Inc.
 909 York Street
 Denver, Colorado 80206
 303-575-3751

Holiday Events at
 DBG page 4

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"Blossoms of Light" and "Tea and Traditions"

Decking the halls with boughs of holly is a custom whose origin is obscured by time. It developed from early cultures when man would regularly fill his dwelling with evergreens for use in magical rites to ensure the promise of summer's return and a sense of immortality. At Denver Botanic Gardens, as part of "Blossoms of Light," these traditions and their origins will be explored in the exhibit "Tea and Traditions."

Holiday lights again will glow at Denver Botanic Gardens from December 12 to January 3 for the annual "Blossoms of Light" celebration. Outside, trees will be draped in thousands of tiny white lights, while inside the theme of the display is "Tea and Traditions."

Trees from pagan times through the Victorian era tell the story of the evolution of the holiday tree. The Lobby Court will be decorated with a contemporary look, emphasizing shades of pink and cranberry. United Floral Industries, a volunteer group of wholesale and retail florists, assists the Gardens' staff in the lobby area, while Wilmore Nurseries is a sponsor by supplying the greens and wreaths; Arapahoe Acres is donating the "European" Christmas trees. The display is open to the public December 12 through January 3 (Christmas and New Year's days excepted) from 9 a.m. until 4:45 p.m.

continued on page 2

Perennial Garden Expert Elsa Bakalar Speaks Dec. 8

The Bonfils-Stanton Foundation Lecture Series continues on December 8 with Elsa Bakalar, the second of five distinguished horticultural speakers coming to the Gardens this winter. Each program will begin at 7 p.m. on the second Tuesday evening of each month through March in John C. Mitchell II Hall.

Perennial garden expert Elsa Bakalar presents "Designing a Perennial Garden: Color, Shape and Texture." She is English-born but has lived in Massachusetts since 1977. In 1982 she began her business, The Hilltop Gardener, specializing in perennial border design, installation and maintenance.

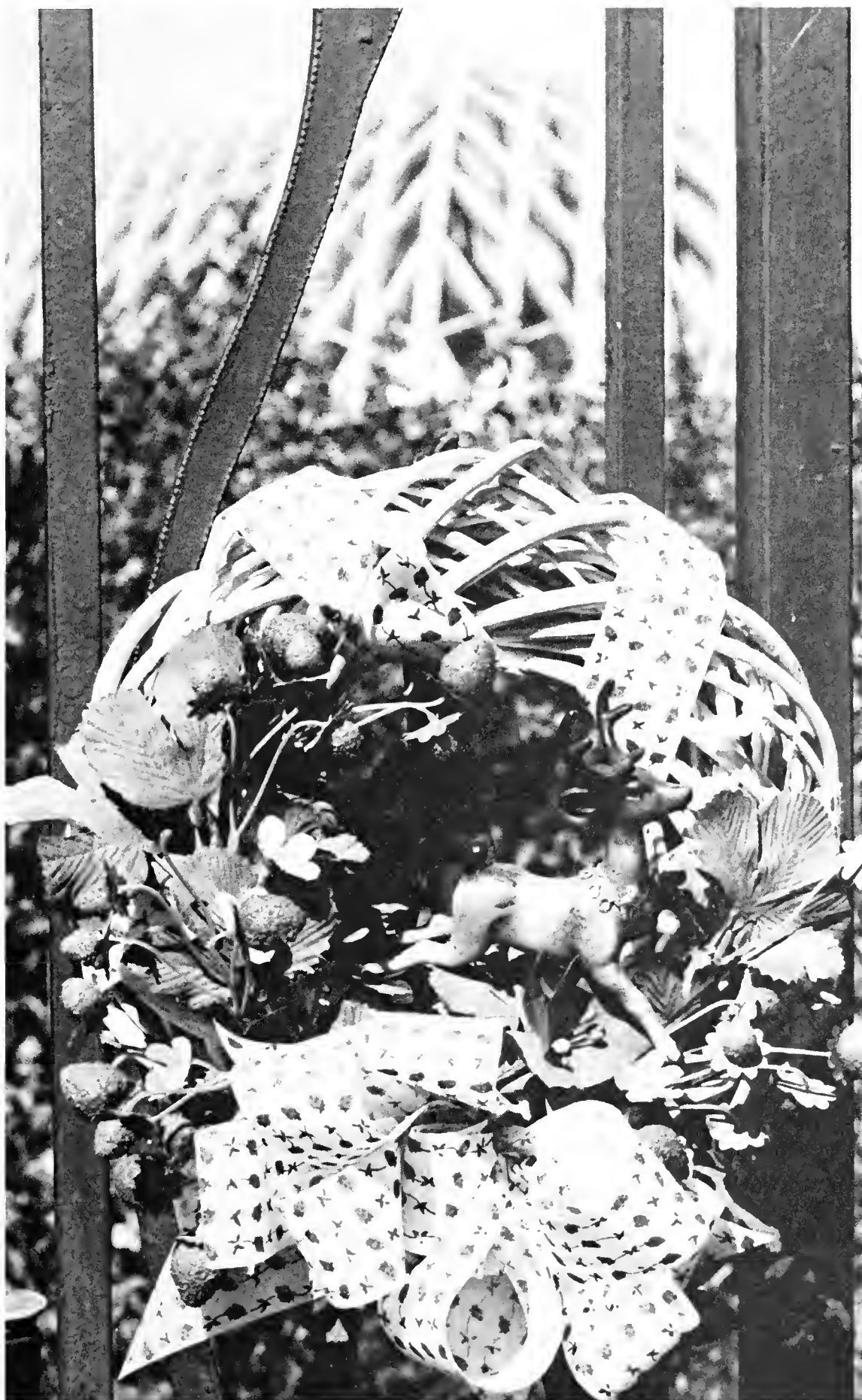
Soon after meeting Mrs. Bakalar it will become apparent that she has an artist's appreciation for the colors of the garden, such as the subtle, but all-important differences of yellows found in rudbeckias and daylilies. She

continued on page 3

Green Thumb

NEWS

Denver Botanic Gardens
December 1987
Number 87-12



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"Heralding the Season"
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page 3

Classes
page 5

*Holiday wreath
by DBG Trustee
and Instructor
Avalonne
Kosanke*

2 From the Director

Within this newsletter is an insert to encourage and facilitate your giving a gift to the Denver Botanic Gardens current Endowment Fund Drive. There are two pressing reasons why your contribution now is vital to the long term financial stability of our Gardens. One reason is the unprecedented \$1,000,000 challenge grant offered to the Gardens by the Boettcher Foundation. The other reason is the major and unanticipated reductions in the City's 1988 appropriation which have been imposed upon our allied cultural agencies.

The \$1,000,000 Boettcher Foundation challenge grant is a unique opportunity that must not slip away. Your gift of \$10.00 will earn \$5.00 more from the Boettcher Foundation. A \$100 gift will be matched with an additional \$50.00. This matching gift opportunity will continue through 1989 and you may make a pledge to give a larger gift, spread over three yearly payments if you so desire. Please contact our Development office for details and pledge cards.

The City's 1988 budget contains substantial reductions in appropriations to the operating budgets of the Denver Museum of Natural History (\$350,000 or 40.1% of their 1987 appropriation level), Denver Zoo (\$350,000 or 46.5% reduction) and Denver Art Museum (\$94,100 or 7.5% reduction). While the Botanic Gardens was spared any reduction from its 1987 appropriation level in the 1988 budget, it was, nevertheless, denied a request for an additional \$63,469 which was necessary to return to our 1986 level of staffing and programming. While we very much appreciate the decision of the Office of Budget and Management to not reduce our 1988 appropriation, we also realize that, in future years, we could be subject to the kinds of substantial and unexpected reductions which our companion cultural agencies are facing next year.

Needless to say, without a large endowment fund which can generate, by its prudent investment, substantial annual interest income, the Gardens has no financial buffer against the kind and magnitude of budget surprises that I have just described. Without sufficient endowment interest income we would be left the undesirable choices of staff reduction, program cutbacks and elimination of services in order to bring our severely reduced budget into balance should such cutbacks in City support be forced upon us.

Your gift to endowment can help offset the potentially devastating impact future City budget cuts may have on the Gardens. During this



challenge grant period (through December 31, 1989) your gift to endowment will increase by 50% as a result of being matched by the Boettcher Foundation. Please give a gift now and pledge to give again in 1988 and 1989. The financial stability of our Gardens depends upon your generosity and your continuing support.

Merle M. Moore
Executive Director

"Blossoms of Light"

continued from page 1

Due to popular demand, "High Tea" is back again this year. There are six "High Teas" on Sunday, December 13 and December 20. Tea times are 2:00, 3:30 and 5:00 p.m. each day. Tickets cost \$14 and advance reservations are required. Besides tea and traditional English fare, there will be gifts available to purchase.

Children get their turn too. There is a special "Teddy Tea" for children on Saturday, December 12 at 2:00 and 4:00 p.m. Herbal tea and a modified English menu are featured. There will be souvenir gifts and a marionette show. This is a delightful event for grandparents to share with their grandchildren. Tickets are \$8 each for children and their adult escorts; advance reservations are also required.

Celestial Seasonings is the sponsor of the "Teddy Tea." Their famous teddy bears will be on display, with teddy bear and other art posters for door prizes. Darjeeling and Earl Grey teas for the "High Teas" are supplied by Celestial Seasonings. Angle Tree Company and Bank Western are also sponsors of "Blossoms of Light."

There are a few tickets left for the teas. See the November *Green Thumb News* for details or call 322-2350 for further information.

During the teas there will be books for sale on "High Teas" and the unusual Christmas rose will also be available.

Displays explaining the evolution of plants in holiday celebrations can be found in John C. Mitchell II Hall. As you enter from the Lobby Court you will notice the four corners of the room adorned with different types of decorations, trees and themes.

For ticket information and reservations, call 322-2350; for other information, call Denver Botanic Gardens at 575-2547 or 575-3751. Make visiting the Gardens during the holiday season one of your family traditions.

Green Thumb News Number 87-12 December 1987

Published monthly by the Denver Botanic Gardens Education department, 909 York Street, Denver, Colorado 80206, and edited by Patricia A. Pachuta and Carolyn Knepp. Subscription to this newsletter is a benefit of membership in the Botanic Gardens. For membership information, please write the Membership department at the above address or call 575-3751.

Deadlines for this newsletter are: Major news stories, feature material (including photographs or artwork), and short notes are all due not later than November 20 for January, December 18 for February and January 20 for March.

Please plan in advance and meet deadlines. Late material cannot be used. Stories must be typed, double-spaced, preferably on copy paper provided by the editor. Please call the Education department at 575-3751 for details.





Denver Botanic Gardens

Dear Members and Friends,

As chairman of the Denver Botanic Gardens Endowment Campaign, I want to bring you up-to-date on our progress. As Merle Moore so clearly stated in his article in this newsletter, this campaign is most important to the Gardens. To date we have received pledges totaling nearly \$1,500,000 or 75% of our goal.

Although there are still some individuals, corporations and groups which we anticipate will contribute, we certainly do not want to leave anyone out of this campaign. That is why we wish to ask that you help us meet this unusual challenge offered by the Boettcher Foundation. We urge that you make your pledge now.

Let me emphasize that the yield on the \$3 million in new endowment monies, added to our previous modest endowment of \$1,700,000 will ensure that the operation and overall quality of the Gardens will be maintained. And that we must do; and that we will do!

Honorariums, memorials, gifts of cash, stocks and property--all will be included in endowment and will be matched under the terms of the challenge. Please remember that every two dollars you give will be matched by another dollar from the Boettcher Foundation. We earnestly solicit your support and ask you to return this pledge form at your earliest convenience.

With thanks in advance,

Lawrence A. Long
Chairman, Endowment Committee
Life Trustee

P.S. If you have already given, we thank you. If you wish to make an additional pledge, we will appreciate that also.

Denver Botanic Gardens Endowment Fund

909 York Street Denver, Colorado 80206

To provide endowment funds to ensure the continued quality maintenance of Denver Botanic Gardens, I/we subscribe the sum of:

\$ Over a period of: ☐ One Year ☐ Two Years ☐ Three Years
(to be paid by 12/31/89)

Other Terms: _____

Date payments will begin: _____ A check in the amount of \$ _____ is attached.
(When appropriate)

Signature _____ Date _____

Additional Comments

Please make checks payable to: *Denver Botanic Gardens* 909 York Street
Endowment Fund Denver, Colorado 80206

Heralding the Season at DBG

The annual members-only event, "Heralding the Season," launches the holidays at Denver Botanic Gardens on Friday, December 11, from 7 to 9 p.m. This popular evening provides a preview of "Blossoms of Light" and its "Tea and Traditions" exhibit.

Members will be entertained by puppeteer Mary Reum, the Memorial Bell Ringers of the First Presbyterian Church of Littleton and the Konfetti Singers from Thomas Jefferson High School. Walk the outside grounds and enjoy the thousands of white lights draped over the trees while listening to strolling carolers.

The seasonal entertainment and festive refreshments have helped to make this one of the most popular members-only events. Although there is no charge for "Heralding the Season," members must make reservations. Reservation details were provided in the November *Green Thumb News* on page 5. For current information call the Membership department at 575-3751, extension 22.

Tributes

- In memory of Mrs. Stewart (Katherine) Cosgriff**
Mr. & Mrs. John C. Mitchell II
- In memory of Clint A. Darnall**
Mr. & Mrs. John H. Moore
- In memory of Priscilla DeLill**
Mr. & Mrs. Richard M. Millard
- In memory of Mrs. Richard I. Galland**
Mr. & Mrs. John C. Mitchell II
- In memory of E. Bennett Horton, Sr.**
Mr. & Mrs. Rollin D. Barnard
- In memory of Lawrence C. Merthan**
Mr. & Mrs. John C. Mitchell II
- In memory of Robert L. Mitton**
Mr. & Mrs. John C. Mitchell II
- In memory of Mrs. Carl A. Norgren**
Mr. & Mrs. John C. Mitchell II
- In memory of Mrs. Robert L. Silber**
Mr. & Mrs. John C. Mitchell II

Give a Membership to the Gardens

One of the most thoughtful gifts is one that gives pleasure throughout the year.

Share your love of the Gardens with a friend. A gift membership provides a monthly newsletter with lists of plant-related classes; a library full of horticultural books, magazines and more; and special events throughout the year are just a few of the benefits you will be providing.

Recipients receive a card informing them of your gift, plus a free plant that may be picked up at the Gardens. With memberships in various categories, you can easily find one that fits all needs. Complete the adjacent coupon, return it to the Gardens, and we'll do the rest.

Little Valley Wholesale Nursery Receives Award

The Colorado Chapter of the American Society of Landscape Architects announces the winner of the first Annual Contractor/Supplier of the Year Award. The award has been established to recognize those firms in the green industry who perform above and beyond the expected norm in the execution of landscape architectural projects.

This year's recipient is Little Valley Wholesale Nursery, Brighton, Colorado, which was nominated for their continuing efforts in providing quality landscape plants, promoting use of indigenous landscape materials, developing an excellent rapport between staff members and landscape architects and continuing to encourage educational programs beneficial to the landscape industry.



Holiday Gift Membership Form

Student (full-time)	<input type="checkbox"/> \$18	Family/Dual	<input type="checkbox"/> \$ 35
Senior (65 or over)	<input type="checkbox"/> \$18	Contributing	<input type="checkbox"/> \$ 50
Senior Couple (two seniors living at same address)	<input type="checkbox"/> \$25	Supporting	<input type="checkbox"/> \$ 100
Individual	<input type="checkbox"/> \$25	Advocate	<input type="checkbox"/> \$ 300
		Patron	<input type="checkbox"/> \$ 500
		Benefactor	<input type="checkbox"/> \$1,000

Donor's Name _____

Address _____

City _____ State _____ Zip _____

Recipient's Name _____

Address _____

City _____ State _____ Zip _____

Date to Mail Gift Card _____

Gift Card to be Signed _____

Please send to Denver Botanic Gardens, Membership Department, 909 York Street, Denver, CO 80206

Elsa Bakalar

continued from page 1

provides lessons in color, texture and balance as part of her conversation — it appears to be a way of life for Mrs. Bakalar.

Mrs. Bakalar has been described as an experienced, opinionated neighbor and a popular lecturer and her program promises to be both informative and enjoyable. Members may attend this lecture at a cost of \$2.50 each and non-members are welcome at individual programs for \$5 each. Please return the registration form in the Bonfils-Stanton Lecture Series brochure mailed to all members or use the Education department registration form on page 6. If you are bringing guests, be sure to include their names as well. If space is available, lecture tickets will be sold at the door on a first-come, first-served basis.

Last minute holiday gifts abound at the DBG Gift Shop.



Helen Fowler Library
Volume 10, No. 5-6
December 1987

Librarian:
Solange
Gignac

THE REVIEWERS:

Solange
Gignac—
Librarian,
DBG

Kathy
Johnson—
Assistant
Librarian,
DBG



***Secret Life of a Forest:
A Photographic Essay***

By Stephen Dalton with Jill
Bailey. Salem House, Topsfield,
Mass., 1986. \$24.95. QH 541.5 F6 D3
1986

Dalton has made a book of photographs of an oak forest in Sussex, in the south of England. Bailey has contributed a descriptive text. It may sound simple and straightforward, but the book is so much more than this. By "secret life" Dalton doesn't just mean his own favorite views of forest plants and animals. He means and shows, with amazing skill and perception, the interwoven cycles in the life of the forest and its flora and fauna. He does this by combining the changes that occur over the four seasons with split-second moments in that continuum.

There are views of the same exact spot on a woodland stream bank in spring, summer, autumn and winter. After these, the rest of the book is divided into these seasons. Within

each are such wonderful scenes as a badger in his nocturnal search for food, spores from a star moss (*Polytrichum* sp.) flying from the top of its capsule, a dormouse leaping from branch to branch, and a brown owl just returning with a mouse for his young. Always there is an emphasis on the breathless, less-than-a-moment from Dalton's camera, that shows what is becoming and also about to change. It is clear that many long, watchful hours have been spent waiting to catch these scenes. In fact, Dalton states that over 300 camera hours were devoted to obtain the picture of the badger. See his photographic notes for more technical details.

Bailey's text sets the stage with her nostalgic and factual description of seasonal happenings. She also identifies the plants or animals in the photographs, and tells how what we see happening fits into their life cycles. This is all that is needed to complete this brilliant "photographic essay."

Kathy Johnson

***The New American
Landscape Gardener:
A Guide to Beautiful
Backyards &
Sensational
Surroundings***

By Phebe Leighton and Calvin
Simonds. Rodale Press, Emmaus,
PA., 1987. \$21.95. SB 473 L44 1987

Do you have a yard or a garden around your home? Phebe Leighton wants to help you make it a garden that is particularly suited to the needs and desires of you and your family. To her, a garden is not just the setting for your house as seen from the street, or what you see when looking out the windows, but it is also an outdoor

living space that can be designed and built as your place to entertain, be alone, grow food, enjoy wildlife, or any other activity or combination of activities. The authors feel the most important element in choosing the garden's function is knowing yourself.

Next, you need to know about your site, its soil, sun, climate and "community context." Also, consider the land forms, plants, furniture and structures you can choose. Many points to consider are given to help you decide about these. Once they are taken into account, Leighton and Simonds introduce chapters on eight special garden features, such as sun decks, winter gardens, water gardens and woodswalks. Possibilities for these are discussed and some favorite plants are

recommended. The high points of these chapters are the charming success stories about how people have realized what they really wanted in a garden and how these gardens have rewarded their efforts by enriching their lives.

Helpful suggestions are given on producing the garden design, how to put it down on paper, and dealing with eyesores, design flaws and circulation problems. The authors finish off with practical information needed to complete the job, including planting and maintenance.

This friendly and inspired guide will be a joy for anyone looking for a more personal approach to landscape planning.

Kathy Johnson

New Titles

The Companion to Roses

By John Fisher. Salem House, Topsfield, Mass., 1987. \$24.95. SB 410.95 F5 1987

Although the title of the book conveys general purpose, one cannot fathom the amount of information contained between the covers of this well-illustrated volume. The dictionary arrangement of the entries will lead the reader from art to the rose in "Ring-a-ring o' roses," to literary allusions and cultural information.

The Naturalist's Garden

By John Feltwell. Salem House, Topsfield, Mass., 1987. \$24.95. SB 451 F45 1987

Mr. Feltwell reviews the history of gardening from the perspective of individuals and institutions that have focused on conservation. The author emphasizes that the gardener can be host to native flora and fauna, enhancing these habitats while providing beauty for the eye to behold.

Hillside Gardening

By William Lake Douglas. Simon and Schuster, New York, 1987. \$19.95. S 627.5 H5 D6 1987

This volume will be helpful to gardeners planning to develop a hillside as well as to the gardener wanting to change a current design. Colored photographs abound, lists of plants for particular sites including zones of tolerance, sources, addresses and names of native plant societies and a well-rounded bibliography precede a detailed index.

The Botanical Paintings of Esther Heins

Text by Judith Leet. Harry N. Abrams, Inc., New York, 1987. \$22.95. QK 98.183 H45 A2 1987

This book is best described by a quotation from the foreword written by Peter Shaw Aston, Director of Arnold Arboretum. "While the majority of the subjects painted were, and still are, growing at the Arnold Arboretum, the artist also selected a few from her own garden, as well as those of her neighbors. In a few cases, she even plucked branches off of the street trees in the cities she was visiting. The unifying thread that ties all of these plants together, however, is Esther Heins herself, who manages to turn whatever she paints into a thing of beauty."

Solange Gignac



Beginning Botanical Illustration

Tuesdays, Jan. 12, 19, 26,
(skip Feb. 2),
Feb. 9, 16, 23

(six sessions)

Classroom B 9:30 to 11:30 a.m.

Cold winter mornings are an ideal time to get acquainted with some of the many exotic tropical plants in our collections.

This introductory course will stress accurate drawing of flowers, roots, stems and leaves. Fresh plant material will be used for each class and will be dissected when necessary to draw individual plant parts.

Students work with pencils, pen and ink, and finally progress to watercolors. Please bring several sharp drawing pencils and an eraser to the first class.

Instructor: Angela Overy received her National Diploma of Design from London University, England, and designed in London, New York and San Francisco before settling in Denver. Over the years, many DBG students have found a new interest and ability in her enthusiastic classes and lectures.

Fee: \$54 members/\$59 non-members (includes \$6 for materials)

Limit: 15

Watercolor and Drybrush Techniques for Botanicals

(six sessions)

Saturdays, Jan. 16, 23, 30,
Feb. 6, 13, 20

1:30 to 3:30 p.m. Classroom B

Have you seen the Dutch Renaissance paintings of bouquets, complete with flowers of all the seasons, painted over an extended period of time? In this contemporary version, students will study and paint a different flower each week. A single painting will develop from these studies, with a different piece being added to the painting each session.

Focus will be on the drybrush techniques in watercolors that produce fine detail. Students can expect to enhance their drawing and compositional skills.

Previous experience with watercolors is desirable, and students should bring whatever materials they have on hand to the first session.

Instructor: Rob Proctor is a Boettcher scholar who studied at the University of Colorado. He has held one-man shows in three countries and his botanical drawings and watercolors hang in many collections throughout the world.

Fee: \$48 members/\$53 non-members



CLASSES

Fall
1987
Denver Botanic Gardens





Coniferous Trees for Denver

(two sessions)

Thursday, December 3

7 to 9 p.m. Classroom C

and Field Trip on Sat., Dec. 5 from 2 to 5 p.m.

This class will acquaint students with coniferous trees (both deciduous and evergreen) that are hardy to the Denver area. The majority of these trees are indigenous to the Colorado Rockies while others are from the eastern United States and western Europe.

Through the use of slides, students will observe approximately 20 species to establish an understanding of their distinguishing characteristics, natural history, culture and landscape value.

Instructor: An experienced teacher, Jeffrey Frank studied horticulture at Pennsylvania State University and earned a master's degree in landscape architecture from the University of Virginia. He is presently in private practice in Denver.

Fee: \$13 members/\$14 non-members

Advanced Christmas Ornaments from Straw and Wheat

(one session)

Sat., Dec. 5 10 a.m. to 3:30 p.m.
DBG's Morrison Center

This workshop is for students who have attended any of the straw or wheat classes offered at Denver Botanic Gardens. New techniques of braiding and plaiting will be taught, and participants can expect to complete five or six different ornaments for their holiday tree. Projects include an angel, bell and a five-pointed star.

Please bring a ruler, scissors and a sack lunch to class.

Instructor: Maureen McGowan

Fee: \$25.50 members/\$28 non-members (includes a \$5.50 materials fee)

Holiday Centerpiece Workshop

(one session)

Thursday, December 3

9:30 a.m. to noon

Classroom B

Make a very personal, rich-looking centerpiece to grace your dining room for the holidays. Students will bring a favorite container or compote and will use all kinds of seasons greens, including holly and magnolia or camellia leaves, to create an arrangement that will be ready for candles.

Choose from many kinds of materials including some for special accent and color. Besides being inexpensive, learning to do it yourself is both enjoyable and relaxing.

Please bring clippers, scissors or knife and an appropriate, non-silver container that is tin, glass or ceramic.

Instructor: Avalonne Kosanke

Fee: \$22 members/\$24 non-members (includes \$12 for materials)

Animal Tracks and Signs at Chatfield Arboretum

(two sessions)

Wed., Jan. 27 from 6 to

9 p.m. in

Classroom C and

Sun., Jan. 31 from 9 a.m.

to 1 p.m. at

Chatfield Arboretum

Would you like to see a skunk or a raccoon's den? Can you tell the difference between fox and coyote tracks? What animal prepares for courtship in February? Just how does the beaver survive winter?

Learn about these and other aspects of animal ecology and behavior including which plants are used as food and shelter by certain animal species. A classroom session with slides and mammal study skins will be followed by a field trip to learn plant/animal associations, identification of animal evidence, animal behavior and common mammals of particular habitats.

Meet: In the classroom on Jan. 27 and at the Chatfield Arboretum Schoolhouse on Jan. 31. Please note new directions to Chatfield Arboretum: Take C-470 west to Wadsworth exit. Turn left and go beneath underpass 0.4 miles to Deer Creek Road. Turn right and the arboretum entrance is 0.4 miles on the left. The schoolhouse is 0.5 miles farther. Please be prompt and wear warm clothing; the group will walk about 1.5-2 miles on level ground at the Arboretum. Don't forget your binoculars and water; lunch is optional.

Instructor: Tina Jones is a wildlife instructor who teaches at the University of Colorado, the Denver Museum of Natural History and Denver Botanic Gardens. She is an active birder with many years of field experience.

Fee: \$17.50 members/\$19.25 non-members

Limit: 20



Registration Form for Classes and Field Trips

Denver Botanic Gardens
909 York Street
Denver, Colorado 80206

Fees for courses should be paid in advance by check or money order made out to Denver Botanic Gardens. Since the space is limited in many courses, registration should be mailed in promptly. Your registration will NOT be acknowledged. Your name will be placed on the class list the day your money is received. No enrollments for class by phone please. All courses given are subject to a minimum enrollment of ten students. For further information, please call 575-3751.

The enclosed check, in the amount of _____, is to cover the registration fees for the following classes:

Name and section of classes _____

Name _____

Address _____

City _____ State _____ Zip _____

Home Tel. No. _____ Business Tel. No. _____

Member of Denver Botanic Gardens? ☐ Yes ☐ No

Gardening Tips for December by the Drs. Green

This Month

Many people assume that the gardening season is over when they put away their lawn mowers in October. There are, however, several projects that are appropriately taken care of at this time of year.

Some trees and shrubs are better pruned in late fall and early winter. This is especially true of those that flower during the very late spring such as crab apples, spireas and mock oranges.

If you haven't already mounded up the soil around your roses, and the ground is still workable, now is the time. Bring the soil up around the stems at the base of the plants to a height of five or six inches and leave it there until spring.

While raking leaves, did you remember to remove them from your gutters? All leaves are good additions to the compost pile and some may be used, especially oak, as a mulch over some of the more tender perennials. Although a light mulch may be applied earlier, a heavier layer should be added only after the ground is frozen solid.

Annual flower beds and vegetable gardens should be rough-spaded. Turn the soil over to a depth of the shovel and leave it in large clumps so that winter freezing and thawing can help break it down and improve soil structure. In spring, you'll find that raking them out will be far easier.

Winter is, of course, the best time to study seed and plant catalogs for new ideas especially while the successes and failures of the previous season are still fresh in your mind.

Q I recall seeing a white-flowered plant blooming outdoors in January. Can you tell me what it was?

A The plant that caught your eye is probably the Christmas rose, *Helleborus niger*. This lovely perennial requires a shady location with a rich, humusy soil. It will bloom from December through April, even under the snow.

Q How long in the winter does a penstemon hold seed in its decorative seed pods?

A According to Panayoti Kelaidis, our Rock Alpine Garden curator, all penstemons shed their seeds when the pods first turn brown and crack open. A few seeds may be retained but the sharp, pointed halves of the seed pods are usually emptied by the wind.



Q What is the vine I see along fencerows with lots of fluffy seed heads?

A The vines are probably different species of *Clematis*. *Clematis orientalis* is an Asiatic species established during mining times in the Clear Creek Valley. Others include *C. ligusticifolia* or Western virgins bower and *C. occidentalis* var. *grosseserrata*, the blue clematis.

Q My friend got what she called a "living Christmas tree" last winter. What was it?

A The name refers to any of a number of pines, spruces and firs that can be used as a living holiday decoration. They can vary from a foot to several feet in height and may be purchased either potted or balled and burlapped.

If you are interested in trying one this year, keep the following suggestions in mind: Make sure the tree is kept moist while in the house and limit its indoor stay to a maximum of three days. Keep it in as cool an area as possible.

Ideally, you should have prepared a planting hole in October and stored some of the soil in a warmer place, such as a garage, to keep from freezing.

After planting, it may be necessary to winter water if the weather is dry.

The Drs. Green welcome your comments and questions for possible inclusion in this column. Please contact them by writing: Drs. Green, Denver Botanic Gardens, 909 York Street, Denver, CO 80206.

CALENDAR

Regular Meetings of Plant Societies

A number of plant and horticultural groups meet fairly regularly at Denver Botanic Gardens. Here is a listing of those groups and a general indication of when they usually meet. For more specific meeting times and locations as well as information on how to contact a representative of the group, please call the Botanic Gardens switchboard during business hours at 575-3751.

African Violet Society, 4th Thurs. of 7 months; **Bonsai Society**, 1st & 3rd Tues.; **Cactus & Succulent Society**, 2nd Tues.; **Civic Garden Club**, 1st Fri.; **Colorado Native Plant Society**, 4th Wed.; **Gloxinia Gesneriad Growers**, 1st Sat.; **Hemerocallis Society**, 3rd Sun. of 4 months; **Ikebana International**, 4th Fri.; **Iris Society**, spring & fall dates; **Men's Garden Club**, 4th Thurs.; **Mycological Society**, 2nd Mon.; **Rock Garden Society**, 3rd Wed.; **Rose Society**, 2nd Thurs.; **Ultra Violet Club**, 4th Mon.; **Water Garden Society**, 2nd Sun. of 5 months.

C	A	L	E	N	D	A	R
	S	M	T	W	T	F	S
			1	2	3 Holiday Centerpiece Workshop	4	5 Advanced Christmas Ornaments from Straw and Wheat
	6	7	8 Bonfils-Stanton Lecture Series: Elsa Bakalar	9	10	11 "Heralding the Season" Dec. 11-Jan. 3 "Blossoms of Light"	12 Teddy Tea
	13 High Tea	14	15	16	17	18	19
	20 High Tea	21	22	23	24	25 DBG Closed	26
	27	28	29	30	31		

Coming Next Month

January 1
DBG Closed

January 12
Bonfils-Stanton
Lecture Series:
Harry Luther

January 27
Animal Tracks
and Signs at
Chatfield
Arboretum

Denver Botanic Gardens, Inc.
909 York Street
Denver, Colorado 80206
303-575-3751

December 1987

TIME VALUE

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